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1999 ANNUAL IN-BUSINESS AIR MONITORING REPORT

WASTE DISPOSAL, INC. SUPERFUND SITE SANTA FE SPRINGS, CALIFORNIA REVISION 1.0

Prepared for

United States Environmental Protection Agency

Prepared by

TRC

Irvine, California

Representing

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April 2001

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1.0 INTRODUCTION

1. This 1999 Annual In-Business Air Monitoring Report provides a summary and evaluation of the 1999 in-business air data collected by the Waste Disposal, Inc. Group (WDIG) at the Waste Disposal, Inc. (WDI) Superfund site (herein known as "the Site") in Santa Fe Springs, California. This report is required under the Amended Statement of Work (SOW) of the Amended Administrative Order, Docket No. 97-09, for the Soil and Subsurface Gas Operable Unit at the Site.

2. The purpose of this report is to review the indoor air conditions of multiple onsite businesses for the Site's primary volatile chemicals of concern (COCs) (i.e., methane, vinyl chloride, benzene, trichloroethene [TCE], tetrachloroethene [PCE] and toluene). Businesses monitored during 1999 were selected by the United States Environmental Protection Agency (EPA) and WDIG based on their relative location to the buried waste at the Site, and the results of prior EPA monitoring.

3. This report has been prepared to meet the following objectives:
   - Summarize in-business air data collected by WDIG from February 1999 through November 1999.
   - Evaluate the data as to trends or other observations.
   - Provide a formal transmittal of the laboratory data and Quality Assurance/Quality Control (QA/QC) to EPA.
   - Submit a proposed modification to the current In-Business Air Monitoring Program, based on the findings of the conditions.

4. The remaining chapters of this report are organized as follows:
   - Chapter 2.0 - Project Background
   - Chapter 3.0 - In-Business Air Sampling and Analysis Methods
   - Chapter 4.0 - In-Business Air Monitoring Results and Data Evaluation
   - Chapter 5.0 - Quality Assurance/Quality Control Data Evaluation
   - Chapter 6.0 - Conclusion and Recommendations
   - Chapter 7.0 - References

2.0 PROJECT BACKGROUND

2.1 GENERAL SITE HISTORY

1. This general history taken from various reports and studies conducted at the Site. It summarizes extensive Site history information available in previous documents (e.g., Final Remedial Investigation [RI] Report, EBASCO, 1989; Predesign and Intermediate [60%] Design Report, Soils and Subsurface Gas Remedial Design, Environmental Solutions, Inc., 1995; Remedial Design [RD] Investigative Activities Summary Report, TRC, 1999).

2. The Site is located in Santa Fe Springs, Los Angeles County, California on an approximately 38-acre parcel of land. It is currently bordered on the northwest by Santa Fe Springs Road, on the northeast by the former Fedco Distribution Center and St. Paul High School, on the southwest by Los Nietos Road, and on the southeast by Greenleaf Avenue (Figure 2.1).

3. For descriptive purposes, EPA has subdivided the Site into eight areas (Areas 1 through 8) as shown in Figure 2.2. The eight areas are comprised of 22 parcels, 19 on which various businesses (e.g., machine shops, auto repair shops, small commercial businesses and light industrial complexes) are currently operating. Investigations have shown that 11 of the 19 parcels have structures located over buried waste. The remaining 3 of the 22 parcels are currently unoccupied. Areas 1 and 8 of the Site, which parallel Santa Fe Springs Road and Los Nietos Road, respectively, are occupied by several light industrial complexes and small commercial businesses. A buried 42-million-gallon-capacity reservoir is located in the central portion of Area 2. The northwestern portion of the reservoir area is covered with an asphalt parking lot and used for recreational vehicle (RV) storage. The remaining portion of Area 2 is undeveloped. Areas 3 through 7 extend along Greenleaf Avenue. Areas 3 and 4 are undeveloped and are the closest property boundary to nearby residential areas (approximately 500 feet). One structure located in Area 5 is used for a commercial business. Areas 6 and 7 are undeveloped and contain several concrete foundations that remain from previous structures.

4. The reservoir was decommissioned for storage in the late 1920s or early 1930s. Beginning in the late 1940s to early 1950s, the Site was used for disposal of a range of wastes and solid fill materials. Aerial photographs from 1945, 1949, 1953, and 1958 show the reservoir as having at various times, liquids (rainwater or perhaps oily liquids/sludge) and/or drilling muds. After 1949, activities regulated under permit from Los Angeles County, Department of Sanitation continued until closure of the facility in 1964. Reliable documentation on

disposal was not maintained; therefore, a comprehensive history of Site disposal practices or accepted waste is not available. However, permitted waste includes the following: rotary drilling muds; clean earth; rock, sand and gravel; paving fragments; concrete; brick; plaster; steel mill slag; dry mud cake from oil field sumps and acetylene sludge. Investigations have shown that disposed material also included, but is not limited to, organic waste, oil refinery waste, solvents and waste chemicals. Wastes were disposed within the reservoir boundary, in bermed areas surrounding the reservoir, and throughout the Site.

5. In 1953, WDI started receiving fill for covering the Site, including the reservoir area and unlined bermed disposal pits. Borehole data indicates that between 5 to 15 feet of fill exists over most of the Site. Recent investigations have shown the fill to be less than 1 foot thick in a 100-square-foot section in Area 5 near the Brothers building. The fill consists mostly of a silty sand material containing construction debris (e.g., broken concrete, gravel, asphalt, wood and brick) with low concentrations (e.g., below background levels) of various COCs.

6. In July 1987, the Site was placed on the National Priorities List (NPL). In 1988, EPA erected a fence around the southeast corner of the Site to improve security and prevent accidental exposure to possible surface contamination. Between 1988 and 1989, EBASCO was tasked by the EPA to perform a Remedial Investigation/Feasibility Study (RI/FS). This process led to the selected remedy for the buried waste presented in the Record of Decision (ROD) (EPA, 1993).

7. The WDIG, initially comprised of the eight Potentially Responsible Parties (PRPs)[1] named in the original Administrative Order, Docket No. 94-17, dated December 23, 1993, undertook Predesign and Design activities during 1995 and 1996. WDIG submitted a Predesign and Intermediate (60%) Design Report (Environmental Solutions, Inc., 1995) and a Prefinal (90%) Design Report, Soils and Subsurface Gas Remedial Design (TRC Environmental Solutions, Inc., 1996) to EPA. The 1995 Predesign activities conducted by WDIG focused primarily on soil conditions in Areas 4 and 7.

(1) Chevron U.S.A., Inc.; The Dia-Log Company; Dresser Industries, Inc.; FMC Corporation; Mobil Oil Corporation; Santa Fe Energy Resources, Inc.; Texaco Inc.; Union Oil Company.

8. In 1997, EPA named 21 PRPs[2] in the Amended Administrative Order, Docket No. 97-09 (EPA, 1997b). The expanded WDIG undertook additional Remedial Design (RD) Investigative Activities, plus other activities requested by EPA in the Amended SOW for Remedial Design (EPA, 1997b). The purpose of these investigations was to collect, review and update additional data on ground water, soil, soil gas and liquids located within and outside the reservoir boundary at the Site.

2.2 SUMMARY OF IN-BUSINESS AIR INVESTIGATIONS

2.2.1 SOIL GAS CHARACTERIZATION

1. The WDIG and EPA conducted soil gas investigative activities during 1997 and 1998, under WDIGs 1997 Remedial Design RD Investigative Activities Workplan (TRC, 1997c) and EPAs 1997 Gas Contingency Plan (EPA, 1997a). These activities continued into 1999 and included four each soil gas monitoring and in-business air monitoring rounds.

2. Interim Action Levels (IALs) for benzene and vinyl chloride that were established as part of EPAs Subsurface Gas Contingency Plan and the Amended Administrative Order, Docket No. 97-09 based on the potential migration of subsurface gas into onsite businesses, continued to be used in 1999. A more detailed description of the rationale for these IALs is provided in the Subsurface Gas Contingency Plan and the Amended Administrative Order (EPA, 1997a, 1997b).

3. To address the risks from methane, EPA used the Integrated Waste Management Board's (IWMB) methane action level in buildings as their criteria:
   - Methane levels in buildings will be below 1.25 percent (i.e., 25 percent of the lower explosion limit of 5 percent methane).
   - Subsurface methane levels at the Site boundary must be below 5 percent based on California IWMB requirements. An Interim Threshold Screening Level (ITSL) of 1.25 percent continues to be used by EPA in evaluating the results of the Subsurface Gas Contingency Plan Investigations Report.

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(2) Archer Daniels Midland; ARCO; Atlantic Oil Company; Bethlehem Steel; Chevron Corporation; Conoco, Inc.; Conopco; DiLo, Inc. (successor to The DiaLog Company); Dresser Industries, Inc.; Exxon; Ferro Corporation; FMC Corporation; Hathaway; Monterey Resources (formerly known as Santa Fe Energy Resources, Inc.); McDonnell Douglas; Mobil Oil Corporation; Santa Fe International Corporation; Shell; Texaco, Inc.; Union Pacific Railroad; UNOCAL.

4. Table 2.1 presents a summary of the soil gas and indoor air ITSLs for the COCs at the Site. The table was reproduced from the Subsurface Gas Contingency Plan Investigations Report dated January 18, 1999 (EPA, 1999).

5. Based on the results of previous site investigations EPA directed WDIG to perform additional indoor air sampling of buildings adjacent to the buried waste near locations with elevated soil gas volatile organic compounds (VOCs) and/or methane levels.

6. The objective of monitoring is to assure that soil gas from the Site is not infiltrating into onsite buildings. The SOW requested by EPA initially required monitoring of businesses on a monthly basis. The in-business air sampling was initiated in February 1998. Results from the first 3 months of monitoring indicated no evidence of soil gas infiltration. Based on those results, monitoring was reduced to quarterly, concurrent with the vapor well monitoring program.

3.0 IN-BUSINESS AIR SAMPLING AND ANALYSIS METHODS

1. As required by EPA, WDIG generated a Field Sampling and Analysis Plan (FSAP) and Quality Assurance Project Plan (QAPP) to support the indoor air monitoring activities (TRC, 1997a, TRC, 1997b).

2. To monitor the onsite businesses indoor air conditions, a summa canister with a flow regulator was placed inside the business on a Sunday morning during nonbusiness hours, in order to maximize the soil gas buildup conditions. A time-weighted indoor air sample was collected over a 24-hour period. TRC personnel retrieved the sample from the buildings the next morning prior to business opening and delivered the samples to a state-certified analytical laboratory for analysis.

3. A detailed outline of the sampling process is provided below:
   - Required equipment and materials:
     - Foxboro TVA-1000 photo ionization detector/flame ionization detector (PID/FID) combination air monitor or equivalent.
     - Tamper resistant tape.
     - Ziploc bags.
     - Summa canisters with 24-hour sample collection regulators. (Regulators are calibrated for 24-hour samples by the analytical laboratory.)
     - Barometer.
     - Thermometer.
   - Building inspection:
     - Interiors of buildings were checked for use or storage of organic compounds. Solvents or other VOCs identified during inspection were noted on field data sheets.
     - Sampling locations were selected in an area of the building away from heat sources and air conditioning/forced air heating ducts. A location was chosen to collect samples at the worst possible location of the business (i.e., near underground connections [sinks] or enclosed spaces [inside offices]).
   - Sampling procedures:
     - Ambient temperature and barometer readings were recorded on field data sheets.
     - PID/FID readings at the sample locations and ambient locations outside the buildings were also recorded.
     - A regulator was attached to each summa canister and the valve opened. Start time/date was recorded on field data sheets.
     - Regulator and summa shutoff valve were enclosed in a ziploc bag and sealed with tamper resistant tape.

- Sample retrieval:
  - Regulator was checked to assure that the sampling unit had not been tampered with.
  - Regulator was closed to stop sampling.
  - Area around the samples was monitored using field instruments and the data recorded on field data sheets.
  - Regulator was removed and the remaining canister vacuum was determined using a vacuum gauge.
  - Samples were logged and shipped to a state-certified laboratory by TRC personnel under a chain-of-custody protocol.

4. Samples were collectively analyzed for volatiles by EPA Method TO-15 and for methane and total gaseous nonmethane organic compounds by EPA Method 25.1 using either an FID or thermal conductivity detector (methane only).

5. As part of this program, various QA/QC samples were collected. These included field blanks and duplicates. In addition to the field QA/QC requirements, the laboratory also included laboratory control samples, method blanks and matrix spikes to comply with the QAPP requirements.

4.0 IN-BUSINESS AIR MONITORING RESULTS AND DATA EVALUATION

1. Data provided in this report is based on four sampling events (February 1999 through November 1999). Indoor air monitoring was performed on a quarterly basis, concurrent with the vapor well monitoring. The data were collected using procedures summarized in Chapter 3.0 and as indicated in the Subsurface Gas Quarterly Monitoring Plan and relevant FSAP and the QAPP documents.

2. Data in this chapter provides a summary of results of the laboratory analyses by Site area, as shown in Figure 4.1. Eleven onsite locations were monitored during 1999. Table 4.1 shows the frequency of sampling for each location. Due to scheduling difficulties on the part of the business owners, mainly because of the inconvenience of weekend sampling, not every location was sampled during each monitoring episode.

3. A summary of the inventory data collected by EPA and additional information collected by WDIG is found in Table 4.2.

4. Results of field monitoring activities described in Chapter 3.0 are provided in Appendix A on CD-ROM.

4.1 IN-BUSINESS AIR MONITORING RESULTS

1. Table 4.3 provides a summary of COCs ITSL exceedances for in-business air monitoring for Areas 1, 2, 5 and 8. The following subsections address these exceedances and provide a brief explanation for the possible cause.

2. Tables 4.4 through 4.7 provide a summary of analytical results for each sampling event conducted during 1999. Laboratory reports and supporting QA documentation are provided on CD-ROM (Appendix A).

3. Table 4.8 provides a summary for In-business air samples for selected constituents.

4.1.1 AREA 1 MONITORING LOCATIONS

1. The following locations in Area 1 were sampled as shown in Table 4.1:

Location (Sample I.D.)	Dates Sampled
R&R Sprouts (IBM-03B)	February, April and August 1999

2. The major COCs (i.e., methane and benzene) for the Site have been detected at low concentrations from indoor air samples collected in Area 1 (see Figure 4.1). The following provides a summary of these detections:
   - **Methane**
     - Methane levels did not exceed the methane ITSL of 100 parts per million (ppm).
   - **Benzene**
     - Benzene levels were detected at 2.0 parts per billion (ppb) during February 1999, which is the ITSL for benzene. The remaining sampling events showed benzene levels below the ITSL.
   - **Vinyl Chloride**
     - Vinyl chloride levels were below the laboratory reporting limit of 1.6 ppb. The ITSL for vinyl chloride is 0.25 ppb.

3. As shown in Table 4.3, one occurrence equal to the ITSL for benzene was observed in Area 1. This occurrence is likely due to onsite activities (i.e., exhaust collecting in the building from local activities such as the next door truck facility).

4.1.2 AREA 2 MONITORING LOCATIONS

1. The following locations in Area 2 were sampled as shown in Table 4.1:

Location (Sample I.D.)	Dates Sampled
C&E Die (IBM-24)	February, April, August and November 1999
C&E Die (IBM-24 AMB) Ambient Air Sample	February, April, August and November 1999

2. Methane and benzene have been detected at low concentrations from indoor and ambient air samples collected from Area 2 (see Figure 4.1). The following provides a summary of these detections:
   - **Methane**
     - Methane levels for IBM-24 were below the ITSL. Methane levels in ambient air sample IBM-24 AMB were below the ITSL.

- **Benzene**
  - Benzene levels for IBM-24 exceeded the ITSL in February. The remaining sample periods did not show benzene levels above the laboratory reporting limits. Benzene levels in ambient air sample IBM-24 AMB were below the ITSL.
- **Vinyl Chloride**
  - Vinyl chloride levels were below laboratory reporting limit of 1.6 ppb for both IBM-24 and IBM-24AMB.

3. One ITSL exceedance for benzene was observed in Area 2. This occurrence is likely due to onsite activities (i.e., exhaust collecting in the building from local activities).

4.1.3 AREA 5 MONITORING LOCATION

1. In Area 5, Brothers Machine Shop (Brothers) is the only onsite business. Brothers was sampled each quarter. As shown in Figure 4.1, Area 5 in-business results (IBM-50) for major COCs are as follows:
   - **Methane**
     - Methane levels were below ITSL.
   - **Benzene**
     - Benzene levels exceeded the ITSL in February and August 1999. The other two sampling periods did not show benzene levels above the laboratory reporting limits.
   - **Vinyl Chloride**
     - Vinyl chloride levels were below laboratory reporting limits of 1.6 ppb.

2. As shown in Table 4.3, two ITSL exceedances were observed at Brothers. These exceedances appear to be related to onsite business practices possibly due to the use of spray lubricants and heavy equipment (i.e., trucks and forklifts) in and around the facility.

4.1.4 AREA 7 MONITORING LOCATIONS

1. Onsite businesses are not located in Area 7. However, an ambient air sample (IBM-49) was collected each quarter along the fence line at the southeast corner of Greenleaf Avenue and Los Nietos Road. As shown in Figure 4.1, the results for the major COCs are as follows:
   - **Methane**
     - Methane levels were below ITSL.
   - **Benzene**
     - Benzene levels were below ITSL.

- **Vinyl Chloride**
  - Vinyl chloride levels were below the laboratory reporting limits of 1.6 ppb.

2. ITSL exceedances did not occur in Area 7 during 1999.

4.1.5 AREA 8 MONITORING LOCATIONS

1. The following locations were sampled in Area 8, as indicated in Table 4.1:

Location (Sample I.D.)	Dates Sampled
• Stansell Brothers (IBM-03)	February and April 1999
• Buffalo Bullet (IBM-24B)	February, April, August and November 1999
• George Ortega (IBM-37)	April and November 1999
• H&H Contractors (IBM-41)	February, April, August and November 1998

2. Methane and benzene have been detected at low concentrations in indoor and ambient air samples collected from Area 8 (see Figure 4.1). The following summarizes these detections:
   - **Methane**
     - Methane levels did not exceed the ITSL.
   - **Benzene**
     - Benzene levels exceeded the ITSL in IBM-03, -24B and -41. The remaining samples were below the ITSL.
   - **Vinyl Chloride**
     - Vinyl chloride levels were below the laboratory reporting limits of 1.6 ppb.

3. ITSLs exceedances were observed in Area 8 samples (see Table 4.3). These exceedances appear to be related to the use of various VOCs containing materials identified in EPAs and WDIGs onsite business chemical inventories (see Table 4.2).

5.0

5.0 QUALITY ASSURANCE/QUALITY CONTROL DATA EVALUATION

1. In-business air monitoring has been performed by WDIG as part of the 1997 RD Investigative Activities Workplan and Comprehensive Subsurface Gas Quarterly Monitoring Plan (Workplan) (TRC, 1997d). The QAPP, which is provided in the workplan as Appendix B, outlines procedures to be used to assure that field investigation activities provide accurate and representative data, and the design calculations and drawings are complete and correct. The QAPP was approved by EPA on September 12, 1997.

2. Laboratory analysis of in-business air samples (including QC samples) was performed by Performance Analytical located in Simi Valley, California, a state-certified facility. The following sections briefly review the QA/QC field and reporting procedures for the In-Business Air Monitoring Program. Section 5.2 discusses the data and its compliance with QAPP requirements.

5.1 IN-BUSINESS AIR MONITORING FIELD AND LABORATORY QA/QC PROCEDURES

5.1.1 FIELD QA/QC PROCEDURES

1. As discussed in Chapter 3.0, field data is collected for the following parameters using field instrumentation (Foxboro TVA-1000 PID/FID):
   - Methane
   - Oxygen
   - Carbon dioxide
   - VOCs

2. The purpose of collecting this information is to identify elevated levels of VOCs and methane during placement of the sampling units.

3. Field instruments are calibrated and maintained using procedures outlined in the Standard Operating Procedures (SOP) B of the QAPP.

5.1.2 LABORATORY QA/QC PROCEDURES

1. Table 5.1 provides a summary of the Data Quality Objectives (DQO) for the subsurface gas monitoring program. These requirements also apply to the In-Business Air Monitoring Program. Based on these requirements, relevant QA/QC levels were established.

2. Table 5.2 provides a summary of the field collection QA requirements (i.e., collection of trip blanks, field blanks, field duplicates and matrix spikes and matrix spike duplicates) for the vapor well samples. These requirements also apply to the In-Business Air Monitoring Program.

3. The in-business air monitoring samples are to be collected and submitted to the state-certified laboratory under a chain-of-custody, as indicated in SOP I of the QAPP.

4. Table 5.3 provides a summary of laboratory QC analysis limits for soil gas samples. These requirements also apply to the In-Business Air Monitoring Program. This table indicates guidelines for detection limits, accuracy, precision and completeness for each analyte. Table 5.3 also specifies sample container types, preservation system and maximum allowable holding time.

5. Table 5.4 provides a summary of relevant internal laboratory QA requirements for the vapor well samples, which include calibration requirements, blank analyses, method blanks, matrix spike and matrix spike duplicates and surrogate compound requirements. These requirements also apply to the In-Business Air Monitoring Program.

5.2 QA/QC FIELD AND LABORATORY DATA EVALUATION

5.2.1 FIELD DATA EVALUATION

1. As part of the field data collection, the field instrumentation was calibrated on a regular basis, as required by the QAPP. The calibration records for the field monitoring activities are provided on CD-ROM (Appendix A). Based on these records, calibration requirements have been achieved.

5.2.2 LABORATORY DATA EVALUATION

1. The laboratory data is divided into two levels of evaluation. The first level is data inspection which evaluates the following elements as shown in Table 5.3:
   - Detection Limits
   - Accuracy
   - Precision
   - Completeness
   - Container Type
   - Preservation
   - Holding

2. The second level of evaluation is the formal data validation process. In this process, each data point is evaluated for its adherence with the project QA/QC requirements. Results of the formal data validation activities are presented in Section 5.3.

3. Data presented in Chapter 4.0 (February 1999 through November 1999) have been evaluated for compliance with the requirements provided in Table 5.3. Results of the evaluation are provided in Table 5.5.

4. Results shown in Table 5.5 indicate that the data met general QA/QC requirements for critical elements shown in Table 5.4, and therefore the data is considered usable.

5.3 DATA VALIDATION RESULTS

1. Based on a comprehensive review of Level IV deliverables with regard to holding times, blank analysis results, surrogate recoveries, duplicate recoveries, calibrations, retention time windows and shifts, laboratory control sample (LCS) recoveries, internal standard recoveries, analytical sequence and instrument sensitivity results are within the QAPP requirements. The data meet the general objectives for completeness, accuracy and precision.

2. Overall, the quality of data provided in this report meet the laboratory reporting requirements. It should be noted that the data issues discussed below are clerical in nature and do not necessarily affect data usability.

3. With regard to data usability, the principal areas of concern include blank contamination, results exceeding the calibration range of the instrument, and low but acceptable precision between sample duplicates. It should be noted that the following data usability issues represent an interpretation of the QC results for the project samples. Quite often, data qualifications address issues relating to problems associated with the sample matrix. Similarly, validation guidelines routinely specify areas of data that require qualification for which the analytical methods applied do not require corrective action by the laboratory. Table 5.6 provides a summary of laboratory data qualifiers.

4. A copy of the data validation reports for the in-business air monitoring conducted during 1999 is included on CD-ROM.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 CONCLUSIONS

1. Results of the in-business air monitoring indicate the following:
   - Methane did not exceed ITSL in the onsite structures. Therefore, subsurface gas has been shown not to be migrating into the buildings.
   - ITSL exceedances:
     - ITSL exceedances have been observed in some of the in-business air monitoring samples. However, these exceedances may be from sources not related to the Site (i.e., use of VOC containing materials related to business practices, vehicle exhaust).

2. The samples collected by WDIG were taken during nonbusiness hours to assure that conditions reflected the worst exposure conditions (i.e., no ventilation, closed doors, no business activity, etc.). Based on field and analytical results, subsurface soil gas conditions at the Site do not appear to present a risk to in-business workers.

6.2 RECOMMENDATIONS

1. Based on the results of data presented in this report, the following recommended modifications are proposed to the Quarterly In-Business Air Monitoring Program:
   - Reduce the sampling locations to:
     - C&E Die (IBM-24).
     - Stansell Brothers (IBM-03).
     - H&H Contractors (IBM-41).
     - Brothers Machine and Tool (IBM-50).
     - R&R Sprouts (IBM-38).
     - Buffalo Bullets (IBM-24B).
     - Durango Designs (IBM-37).
     - One ambient air sample location (IBM-24AMB).
   - Selection of the revised sampling locations is based on our current data, and the proximity of these facilities to subsurface waste materials. Other locations would be eliminated since the above locations are more representative of the worst-case conditions.
   - Reduce sampling frequency to semiannual.
   - Implement the use of digital electronic flow controllers, which can be installed in the businesses on weekdays, and collected during nonbusiness hours over the weekend. This will improve tenant cooperation and reduce costs, without sacrificing data and QA/QC requirements.

7.0

7.0 REFERENCES

CDM Federal. 1999. *Ground Water Data Evaluation Report, Waste Disposal, Inc. Superfund Site*, Santa Fe Springs, California. January 14, 1999.

EBASCO Services Incorporated. 1989 *Final Remedial Investigation Report, Waste Disposal, Inc.*, Santa Fe Springs, California. EPA Contract 68-01-7250. November 1989.

Environmental Solutions, Inc. 1995. *Predesign and Intermediate (60%) Design Report, Soils and Subsurface Gas Remedial Design, Waste Disposal, Inc. Superfund Site,* Santa Fe Springs, California. October 1995.

EPA, 1999. *Subsurface Gas Contingency Plan Investigations Report.*

EPA. 1997a. *Gas Contingency Plan. Waste Disposal, Inc. Superfund Site Summary.* 1997.

EPA. 1997b. *Docket No. 97-09 – Amended Administrative Order for Remedial Design and Other Response Actions (Amending Docket No. 94-17).* 1997.

EPA. 1993a. *Feasibility Study Report for Soils and Subsurface Gas Waste Disposal, Inc. Superfund Site.* Santa Fe Springs, California. August 2, 1993.

EPA. 1993b. *Record of Decision (ROD) - Soils and Subsurface Gas Operable Unit.* December 22, 1993.

TRC, 1999. *Remedial Design Investigative Activities Summary Report.*

TRC. 1997a. *Revised Supplemental Field Sampling and Analysis Plan (Rev. 1.0).* Waste Disposal, Inc. Superfund Site. October 1997.

TRC. 1997b. *Revised Supplemental Quality Assurance Project Plan (Rev. 1.0).* Waste Disposal, Inc. Superfund Site. October 1997.

TRC. 1997c. *Remedial Design Investigative Activities Workplan and Comprehensive Ground Water Quarterly Monitoring Plan, Waste Disposal, Inc. Superfund Site,* Santa Fe Springs, California. August 29, 1997.

TRC. 1997d. *Comprehensive Subsurface Gas Quarterly Monitoring Plan (Rev. 1.0).* Waste Disposal, Inc. Superfund Site. July 1997.

TRC Environmental Solutions, Inc. 1996. *Prefinal (90%) Design Report Soils and Subsurface Gas Remedial Design.* April 1996.

TABLE 2.1

SOIL GAS AND INDOOR AIR INTERIM THRESHOLD SCREENING LEVELS FOR CONSTITUENTS OF CONCERN WASTE DISPOSAL, INC. SUPERFUND SITE

COMPOUND	SOIL GAS THRESHOLD VALUE (ppbv)	INDOOR AIR THRESHOLD VALUE (ppbv)	SITE BOUNDARY THRESHOLD VALUE (ppbv)
Acetone	31,200	312	15,600
Benzene	200	2	100
Carbon Tetrachloride	68	0.68	34
Chloroethane	75,200	752	37,600
Chloroform	340	3.4	170
Dibromoethane	6	0.06	3
1,2-Dichloroethane	360	3.6	180
cis-1,2-Dichloroethane	1,860	18.6	930
1,1-Dichloroethane	25,600	256	12,800
1,2-Dichloropropane	186	1.86	93
trans-1,2-Dichloroethene	3,680	36.8	1,840
Ethylbenzene	49,000	490	24,500
Tetrachloroethene (Perc)	1,064	10.6	532
Toluene	21,200	212	10,600
1,1,2-Trichlorethane	440	4.4	220
1,1,1-Trichloroethane	36,800	368	18,400
Trichloroethene	822	8.2	411
Vinyl Chloride	25	0.25	12.5
m,p-Xylene	14,280	142.8	7,140
o-Xylene	14,280	142.8	7,140
Methane (%)	5	1.25	1.25

94-256/Rpts/In-BuAiSaAnRe(May) (5/9/00/rm)

Source: CDM Federal Programs Corporation, Subsurface Gas Contingency Plan Investigation Report, Waste Disposal, Inc. Superfund Site, January 14, 1999.

TABLE 4.1

IN-BUSINESS AIR MONITORING FREQUENCY
WASTE DISPOSAL, INC. SUPERFUND SITE

SITE AREA	SAMPLE I.D.	COMPANY NAME	ADDRESS	SAMPLE DATES			
				2/8/99	4/26/99	8/2/99	11/8/99
1	WDI-IBM-03B	R&R Sprouts	12633E Los Nietos Rd.	X	X	X	
2	WDI-IBM-24	C&E Die & Fab	12637B Los Nietos Rd.	X	X	X	X
	WDI-IBM-24Amb	C&E Die & Fab (Ambient Air Sample)	12637B Los Nietos Rd. (outside building)	X	X	X	X
	WDI-IBM-26	(Ambient Air Sample)(1)				X	
	WDI-IBM-TM-13 Containment Area	(Ambient Air Sample)(2)				X	
3	WDI-IBM-51	(Ambient Air Sample)(3)				X	
5	WDI-IBM-50	Brothers Machine and Tool	9843 Greenleaf Ave.	X	X	X	X
7	WDI-IBM-49	Ambient Air Sample(4)	Southeast Corner of Los Nietos Rd. and Greenleaf Ave.	X	X	X	X
8	WDI-IBM-03	Stansell Brothers	12635E Los Nietos Rd.	X	X		
	WDI-IBM-24B	Buffalo Bullet	12637A Los Nietos Rd.	X	X	X	X
	WDI-IBM-37	Durango Designer	12803 Los Nietos Rd.		X		X
	WDI-IBM-41	H&H Contractors	12811F Los Nietos Rd.	X	X	X	X

94-256/Rpts/In-BuAiSaAnRe(May) (5/26/00)/rm)

(1) Bennett Property (northeast corner of Area 2).
(2) Bennett Property (southeast corner of Area 2 in TM No. 13 containment area).
(3) Bennett Property (south central corner of Area 3).
(4) Campbell Property (southeast corner of Area 7).

TABLE 4.2

CHEMICAL INVENTORY OF ONSITE BUSINESSES
WASTE DISPOSAL, INC. SUPERFUND SITE

BUSINESS	CHEMICAL PRODUCTS USED WITHIN THE BUILDING (from EPA Inventory)	ADDITIONAL CHEMICALS IDENTIFIED DURING IN-BUSINESS AIR MONITORING BY WDIG
Brothers Machine and Tool 9843 Greenleaf Avenue Contact: Enrique Razo Date of EPA Inspection: 1/7/98	According to Mr. Razo, the chemicals used at their facility is hydraulic oil for their machines (Western Basin Soluble Oil) and diesel fuel for their vehicles. Diesel fuel is stored in one 5-gallon gas can in the north corner of the building. There are three 5-gallon containers of oil stored in plastic buckets inside the building. MSDS was not available for review.	Identified several cans of WD-40 spray lubricant which contains methyl ethyl ketone and toluene along with many VOCs.
E&L Electric 9632 Santa Fe Springs Rd. Contact: Mike Fitch Date of EPA Inspection: 1/7/98	The main chemicals used at this building are the Safety-Kleen solvent tank and varnish. The following information was provided in the MSDS for the Safety-Kleen solvent and varnish: Safety-Kleen 105 Solvent Recycled-California Hazardous Components - hydrotreated light petroleum distillates (Petroleum Naphtha [99 to 100%]); Tetrachloroethene (0 to 0.5%); 1,1,1-Trichloroethane (0 to 0.5%). The Safety-Kleen solvent also contains detectable amounts of benzene, carbon tetrachloride, 1,2-dichlorobenzene, dichloroethane, toluene and trichloroethene. Polyester Resin Solution (varnish) Hazardous component - organic peroxide (1.0% to 1.4% by weight)	E&L Electric was replaced by Gold Coast Refractory. Identified various paints, spray lubricants (WD-40), and foam insulation products. Refractory units operate on some weekends, which may contribute to airborne VOC load.
Buffalo Bullet 12637A Los Nietos Rd. Date of EPA Inspection: 11/20/97 and 1/7/97	(1)	Various cleaning solvents (Safety-Kleen, kerosene and naphtha) used during degreasing.
C&E Die Fab 12637B Los Nietos Rd Contact: Mark Ellis Date of EPA Inspection: 11/20/97	Fifteen gallons of cleaning solvent (UN-1255 Petrolube, Inc.) Cutting oil, 15 gallons each of machine oil, turbine oil, Metal Working Fluid (Grade 503), Soluble Oil, and 1 gallon of parts cleaning solvent (open can in warehouse).	Identified various cleaning solvents including naphtha, lacquer thinner, kerosene and parts dip. Spray lubricants were also observed.

(1) Only the secretary was at the business at the time of both inspections. Thus, a list of chemical products used within the building was not available.

TABLE 4.2

CHEMICAL INVENTORY OF ONSITE BUSINESSES
WASTE DISPOSAL, INC. SUPERFUND SITE
(Continued)

BUSINESS	CHEMICAL PRODUCTS USED WITHIN THE BUILDING (from EPA Inventory)	ADDITIONAL CHEMICALS IDENTIFIED DURING IN-BUSINESS AIR MONITORING BY WDIG
Bell Auto Body 12469 Los Nietos Rd. Contact: Luis Reyna Date of EPA Inspection: 1/7/98	According to Mr. Reyna, their facility mostly uses paint, paint thinner and various oils including WD-40. The business is an autobody shop and is surrounded by used cars, including a car inside the shop.	Various fiberglass resins, acetone and catalysts were observed. Various spray cans containing paints, lubricants and primers were identified. Gasoline cans were observed in the building.
R&R Sprouts 12633E Los Nietos Rd. Date of EPA Inspection: 1/7/98	This business grows alfalfa sprouts for juice bars. The chemical used at this business is chlorine bleach to clean tanks. Solvents or oils are not used in this building.	None.
Stansell Brothers 12635E Los Nietos Rd. Contact: Vernon Stansell Date of EPA Inspection: 1/7/98	According to Mr. Stansell, their business uses acetone, cutting oil, WD-40, Sup-'N'-Kleen Aerosol (contains isobutane, ethylene glycol and monbuytyl ether). Mr. Stansell provided the MSDS for other chemicals used at his business. The following information was provided in the MSDS: Zep ESP (General Purpose Cleaner) - contains d-propyelene glycol methyl ether (<5%). Shell Tetlus Oil 32 (industrial oil) - contains Shell Tellus Oil and solvent refined, hydrotreated heavy paraffinic distillate. Shell Tonna Oil 68 (lubricating oil) - contains Shell Tonna Oil 68; catalytic dewaxed heavy paraffinic distillate and hydrotreated heavy paraffinic distillate. Dromus B (solvent refined petroleum grade). Garia Oil (cutting oil) (8% fatty oil). 1-k-Kerosene (may contain sulfur and benzene).	Observed containers with naphtha and other degreasers. Spray cans with mold release agents were observed.
H&H Contractors 12811F Los Nietos Rd. Date of EPA Inspection: 1/7/98	No data.	Various cans of glue, varnish, shellac and paint thinner were observed in the building. Several gasoline cans were stored in the building.

TABLE 4.3

INTERIM THRESHOLD SCREENING LEVEL EXCEEDANCES DURING 1999 IN-BUSINESS AIR MONITORING WASTE DISPOSAL, INC. SUPERFUND SITE

AREA[1]	COMPANY NAME	SAMPLE I.D.	NO. OF SAMPLE ROUNDS PERFORMED IN 1999	SAMPLE DATE WITH EXCEEDANCE	CONSTITUENT DETECTED ABOVE ITSL[2]	INDOOR AIR THRESHOLD LIMIT (ppb)	CONCENTRATION (ppb)
1	R&R Sprouts	IBM-03B	3	2/99	Benzene	2.0	2.0
				8/99	Chloroform	3.4	10.0
2	C&E Die and Fab	IBM-24	4	2/99	Benzene	2.0	2.8
				11/99	Acetone	312	880[3]
5	Brothers Machine & Tool	IBM-50	4	2/99	Benzene	2.0	2.1
				8/99	Benzene	2.0	16[4]
8	Stansell Brothers	IBM-03	2	2/99	Acetone	312	750[5]
					Benzene	2.0	6.6[6]
				4/99	Acetone	312	640[5]
					Benzene	2.0	6.4[6]
	Buffalo Bullet	IBM-24B	4	2/99	Benzene	2.0	2.4
	Durango Designs	IBM-37	2	4/99	TCE	8.2	12
				11/99	TCE	8.2	42
	H&H Contractors	IBM-41	4	2/99	Benzene	2.0	3.9[7]
					PCE	10.6	22[8]
				4/99	Acetone	312	340[8]
					Benzene	2.0	3.2[7]
				8/99	Acetone	312	490[8]
					Benzene	2.0	2.6[7]
				11/99	Acetone	312	430[8]
					Benzene	2.0	2.4[7]

94-256/Rpts/In-BuAtAnSaRe(May) (5/26/00)/rm)

(1) Area 7 did not have ITSL exceedances.
(2) Vinyl chloride has threshold limit of 0.25 ppb. The laboratory reporting limit was higher than the threshold limit. However, exceedance of the laboratory reporting limit were not detected.
(3) Acetone and MEK are voluntarily used by C&E Die and Fab.
(4) Diesel fuel is used in vehicles at Brothers.
(5) Acetone is routinely used by Stansell Brothers.
(6) Kerosene which may contain benzene is used by Stansell Brothers.
(7) Several gasoline cans are stored in the H&H contractors building.
(8) Various cans of glue, varnish, shellac and paint thinner were observed in the building.

ppb = parts per billion

TABLE 4.4

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
FEBRUARY 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Stansell Brothers			Stansell Brothers			R & R Sprouts			C & E Die and Fab			C & E Die and Fab (Ambient)			Buffalo Bullet			Buffalo Bullet			Ambient Air Sample			Durango Designs		
Sample Number	WDI-IBM-03-07			WDI-IBM-03-07			WDI-IBM-03B-07			WDI-IBM-24-07			WDI-IBM-AMB-24-07			WDI-IBM-24B-07			WDI-IBMFD-24B-07			WDI-IBM-26-07			WDI-IBM37-07		
Sample Type	REG			DUP			REG			REG			REG			REG			REG			REG			REG		
Sample Depth																											
Sample Date	2/8/99			2/8/99			2/8/99			2/8/99			2/8/99			2/8/99			2/8/99			Not sampled this quarter			Not sampled this quarter		
Field Methane (%)																											
Field PID VOCs (ppm)																											
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID	P9900260-009			P9900260-009DUP			P9900260-008			P9900260-004			P9900260-005			P9900260-006			P9900260-007								
Analysis Date	2/12/99			2/12/99			2/12/99			2/12/99			2/12/99			2/12/99			2/12/99								
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)	**3.9**		0.50	**4.0**		0.50	**3.8**		0.50	**3.2**		0.50	**4.0**		0.50	**4.4**		0.50	**4.5**		0.50						
Total Nonmethane (ppmv)	**3.8**		1.0	**4.1**		1.0	1.0	U	1.0	**3.9**		1.0	1.0	U	1.0	**5.8**	J^1	1.0	**2.0**	J^1	1.0						
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane	0.73	U	0.73				0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	1.5	U	1.5	0.73	U	0.73						
1,1,2,2-Tetrachloroethane	0.58	U	0.58				0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	1.2	U	1.2	0.58	U	0.58						
1,1,2-Trichloroethane	0.73	U	0.73				0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	1.5	U	1.5	0.73	U	0.73						
1,1-Dichloroethane	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	2.0	U	2.0	0.99	U	0.99						
1,1-Dichloroethene	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0						
1,2-Dibromoethane	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	1.0	U	1.0	0.52	U	0.52						
1,2-Dichlorobenzene	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	1.3	U	1.3	0.67	U	0.67						
1,2-Dichloroethane	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	2.0	U	2.0	0.99	U	0.99						
1,2-Dichloropropane	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	1.7	U	1.7	0.87	U	0.87						
1,3-Dichlorobenzene	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	1.3	U	1.3	0.67	U	0.67						
1,4-Dichlorobenzene	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	1.3	U	1.3	0.67	U	0.67						
2-Butanone	**3.4**		1.4				**2.1**		1.4	**6.3**		1.4	1.4	U	1.4	2.7	U	2.7	**1.3**	J	1.4						
2-Hexanone	0.98	U	0.98				0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	2.0	U	2.0	0.98	U	0.98						
4-Methyl-2-Pentanone	0.98	U	0.98				0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	2.0	U	2.0	0.98	U	0.98						
Acetone	**750**		1.7				**24**		1.7	**45**		1.7	**9.4**		1.7	**12**	J^1	3.4	1.7	J^1	1.7						
Benzene	**6.6**		1.3				**2.0**		1.3	**2.8**		1.3	**1.7**		1.3	**2.4**	J	2.5	**1.9**		1.3						
Bromodichloromethane	0.60	U	0.60				0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	1.2	U	1.2	0.60	U	0.60						
Bromoform	0.39	U	0.39				0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.77	U	0.77	0.39	U	0.39						
Bromomethane	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	2.1	U	2.1	1.0	U	1.0						
Carbon Disulfide	**2.6**		1.3				1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	2.6	U	2.6	1.3	U	1.3						
Carbon Tetrachloride	0.64	U	0.64				0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	1.3	U	1.3	0.64	U	0.64						
Chlorobenzene	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	1.7	U	1.7	0.87	U	0.87						
Chloroethane	1.5	U	1.5				1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	3.0	U	3.0	1.5	U	1.5						
Chloroform	0.82	U	0.82				**1.1**		0.82	0.82	U	0.82	0.82	U	0.82	1.6	U	1.6	0.82	U	0.82						
Chloromethane	1.9	U	1.9				1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	3.9	U	3.9	1.9	U	1.9						
cis-1,2-Dichloroethene	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0						
cis-1,3-Dichloropropane	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	1.8	U	1.8	0.88	U	0.88						
Dibromochloromethane	0.47	U	0.47				0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.94	U	0.94	0.47	U	0.47						
Ethylbenzene	**7.0**		0.92				0.92	U	0.92	**2.3**		0.92	0.92	U	0.92	1.8	U	1.8	0.92	U	0.92						
m- &p-Xylene	**25**		0.92				**3.1**		0.92	**9.6**		0.92	**2.3**		0.92	**4.2**	J^1	1.8	**2.4**	J^1	0.92						
Methyl tert-Butyl Ether	**63**		1.1				**10**		1.1	**8.0**		1.1	**7.7**		1.1	**15**	J^1	2.2	**10**	J^1	1.1						
Methylene Chloride	1.2	U	1.2				1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	2.3	U	2.3	1.2	U	1.2						
o-Xylene	**9.1**		0.92				**1.2**		0.92	**3.5**		0.92	**0.9**	J	0.92	**1.6**	J	1.8	**0.86**	J	0.92						
Styrene	0.94	U	0.94				0.94	U	0.94	0.94	U	0.94	0.94	U	0.94	1.9	U	1.9	0.94	U	0.94						
Tetrachloroethene	0.59	U	0.59				0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	1.2	U	1.2	0.59	U	0.59						
Toluene	**48**		1.1				**6.3**		1.1	**6.7**		1.1	**4.8**		1.1	**8.5**	J^1	2.1	**5.2**	J^1	1.1						
trans-1,2-Dichloroethene	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0						
trans-1,3-Dichloropropene	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	1.8	U	1.8	0.88	U	0.88						
Trichloroethene	0.74	U	0.74				0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	**1.0**	J	1.5	**1.2**		0.74						
Trichlorofluoromethane	0.71	U	0.71				0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	1.4	U	1.4	0.71	U	0.71						
Trichlorotrifluoroethane	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	1.0	U	1.0	0.52	U	0.52						
Vinyl Acetate	1.1	U	1.1				1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	2.3	U	2.3	1.1	U	1.1						
Vinyl Chloride	1.6	U	1.6				1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	3.1	U	3.1	1.6	U	1.6						

NOTE: All methane & nonmethane results to be reported in parts per million by volume (ppmv); all VOC results to be reported in parts per billion by volume (ppbv).
The laboratory specified reporting detection limit (RDL) should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration); qualifier J^1 = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
Qualifier J^2 = results for analyte should be considered estimated because the on-column concentrations of these compounds exceeded the calibration range of the instrument.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.4

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
FEBRUARY 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE
(continued)

Sample Location	H & H Contractors			H & H Contractors			Ambient Air Sample			Brothers Machine & Tool			Ambient Air Sample			Ambient Air Sample			Method Blank			Method Blank		
Sample Number	WDI-IBM-41-07			WDI-IBM-41-07			WDI-IBM-49-07			WDI-IBM-50-07			WDI-IBM-51-07			WDI-IBM-TM-13 Contain			Method Blank			Method Blank		
Sample Type	REG			DUP			REG			REG			REG			REG			Blank			Blank		
Sample Depth																								
Sample Date	2/8/99			2/8/99			2/8/99			2/8/99			Not sampled this quarter.			Not sampled this quarter.			NA			NA		
Field Methane (%)																								
Field PID VOCs (ppm)																								
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID	P9900260-001			P9900260-001DUP			P9900260-002			P9900260-003									P990222-MB			P990212-MB		
Analysis Date	2/12/99			2/22/99			2/12/99			2/12/99									2/22/99			2/12/99		
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)	**2.8**		0.50				**2.5**		0.50	**2.9**		0.50										0.50	U	0.50
Total Nonmethane (ppmv)	**4.8**		1.0				**4.2**		1.0	**3.0**		1.0										1.0	U	1.0
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane	**1.1**		0.73	**1.2**		0.73	**1.2**		0.73	0.73	U	0.73							0.18	U	0.18			
1,1,2,2-Tetrachloroethane	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58							0.15	U	0.15			
1,1,2-Trichloroethane	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73							0.18	U	0.18			
1,1-Dichloroethane	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99							0.25	U	0.25			
1,1-Dichloroethene	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.25	U	0.25			
1,2-Dibromoethane	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52							0.13	U	0.13			
1,2-Dichlorobenzene	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67							0.17	U	0.17			
1,2-Dichloroethane	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99							0.25	U	0.25			
1,2-Dichloropropane	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87							0.22	U	0.22			
1,3-Dichlorobenzene	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67							0.17	U	0.17			
1,4-Dichlorobenzene	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67							0.17	U	0.17			
2-Butanone	**7.4**		1.4	**7.6**		1.4	**3.0**		1.4	**1.8**		1.4							0.34	U	0.34			
2-Hexanone	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98							0.24	U	0.24			
4-Methyl-2-Pentanone	**0.86**	J	0.98	**0.81**	J	0.98	0.98	U	0.98	0.98	U	0.98							0.24	U	0.24			
Acetone	**200**	J^2	1.7	**190**	J^2	1.7	**22**		1.7	**110**		1.7							0.42	U	0.42			
Benzene	**3.9**		1.3	**3.9**		1.3	1.3	U	1.3	**2.1**		1.3							0.31	U	0.31			
Bromodichloromethane	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60							0.15	U	0.15			
Bromoform	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39							0.10	U	0.10			
Bromomethane	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.26	U	0.26			
Carbon Disulfide	1.3	U	1.3	1.3	U	1.3	**1.8**		1.3	1.3	U	1.3							0.32	U	0.32			
Carbon Tetrachloride	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64							0.16	U	0.16			
Chlorobenzene	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87							0.22	U	0.22			
Chloroethane	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5							0.38	U	0.38			
Chloroform	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82							0.20	U	0.20			
Chloromethane	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9							0.48	U	0.48			
cis-1,2-Dichloroethene	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.25	U	0.25			
cis-1,3-Dichloropropane	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88							0.22	U	0.22			
Dibromochloromethane	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47							0.12	U	0.12			
Ethylbenzene	**5.1**		0.92	**5.1**		0.92	0.92	U	0.92	**1.1**		0.92							0.23	U	0.23			
m- &p-Xylene	**20**		0.92	**20**		0.92	**2.5**		0.92	**4.4**		0.92							0.23	U	0.23			
Methyl tert-Butyl Ether	**45**		1.1	**44**		1.1	**8.3**		1.1	**7.7**		1.1							0.28	U	0.28			
Methylene Chloride	**170**	J^2	1.2	**170**	J^2	1.2	1.2	U	1.2	1.2	U	1.2							0.29	U	0.29			
o-Xylene	**6.9**		0.92	**7.0**		0.92	**0.86**	J	0.92	**1.9**		0.92							0.23	U	0.23			
Styrene	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94							0.23	U	0.23			
Tetrachloroethene	**22**		0.59	**22**		0.59	**1.7**		0.59	0.59	U	0.59							0.15	U	0.15			
Toluene	**91**		1.1	**90**		1.1	**5.2**		1.1	**6.2**		1.1							0.27	U	0.27			
trans-1,2-Dichloroethene	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.25	U	0.25			
trans-1,3-Dichloropropene	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88							0.22	U	0.22			
Trichloroethene	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74							0.19	U	0.19			
Trichlorofluoromethane	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71							0.18	U	0.18			
Trichlorotrifluoroethane	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52							0.13	U	0.13			
Vinyl Acetate	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1							0.28	U	0.28			
Vinyl Chloride	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6							0.39	U	0.39			

NOTE: All methane & nonmethane results to be reported in ppmv; all VOC results to be reported in ppbv.
The RDL should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration); qualifier J^1 = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
Qualifier J^2 = results for analyte should be considered estimated because the on-column concentrations of these compounds exceeded the calibration range of the instrument.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.5

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
APRIL 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Stansell Brothers			R & R Sprouts			R & R Sprouts			C & E Die and Fab			C & E Die and Fab (Ambient)			Buffalo Bullet			Ambient Air Sample			Durango Designs			H & H Contractors		
Sample Number	WDI-IBM03-08			WDI-IBM03B-08			WDI-IBMFD-03B-08			WDI-IBM24-08			WDI-IBM24-AMB-08			WDI-IBM24B-08			WDI-IBM-26-08			WDI-IBM37-08			WDI-IBM41-08		
Sample Type	REG			REG			REG			REG			REG			REG			REG			REG			REG		
Sample Depth																											
Sample Date	4/26/99			4/26/99			4/26/99			4/26/99			4/26/99			4/26/99			Not sampled this quarter			4/26/99			4/26/99		
Field Methane (%)																											
Field PID VOCs (ppm)																											
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID	P9900842-008			P9900842-006			P9900842-007			P9900842-003			P9900842-004			P9900842-005						P9900842-009			P9900842-001		
Analysis Date	5/3/99			5/3/99			5/3/99			5/3/99			5/3/99			5/3/99						5/3/99			5/3/99		
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)	**2.8**		0.50	**2.9**		1.0	**3.2**		0.50	**2.4**		0.50	**3.4**		0.50	**2.9**		0.50				**2.1**		0.50	**2.2**		0.50
Total Nonmethane (ppmv)	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane	0.73	U	0.73	1.5	U	1.5	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73				0.73	U	0.73	**1.2**		0.73
1,1,2,2-Tetrachloroethane	0.58	U	0.58	1.2	U	1.2	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58				0.58	U	0.58	0.58	U	0.58
1,1,2-Trichloroethane	0.73	U	0.73	1.5	U	1.5	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73				0.73	U	0.73	0.73	U	0.73
1,1-Dichloroethane	0.99	U	0.99	2.0	U	2.0	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99
1,1-Dichloroethene	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0
1,2-Dibromoethane	0.52	U	0.52	1.0	U	1.0	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52
1,2-Dichlorobenzene	0.67	U	0.67	1.3	U	1.3	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	**2.2**		0.67				0.67	U	0.67	0.67	U	0.67
1,2-Dichloroethane	0.99	U	0.99	2.0	U	2.0	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99
1,2-Dichloropropane	0.87	U	0.87	1.7	U	1.7	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87
1,3-Dichlorobenzene	0.67	U	0.67	1.3	U	1.3	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67
1,4-Dichlorobenzene	0.67	U	0.67	1.3	U	1.3	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67
2-Butanone	**5.7**		1.4	**2.0**	J	2.7	**1.8**		1.4	**2.4**		1.4	**4.5**		1.4	**1.6**		1.4				**16**		1.4	**59**		1.4
2-Hexanone	0.98	U	0.98	2.0	U	2.0	0.98	U	0.98	0.98	U	0.98	**0.78**	J	0.98	0.98	U	0.98				0.98	U	0.98	0.98	U	0.98
4-Methyl-2-Pentanone	**1.1**		0.98	2.0	U	2.0	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98				0.98	U	0.98	**2.8**		0.98
Acetone	**640**		1.7	**24**	J[1]	3.4	**18**	J[1]	1.7	**19**		1.7	**290**		1.7	**34**		1.7				**12**		1.7	**340**		1.7
Benzene	**6.4**		1.3	**1.4**	J	2.5	**1.0**	J	1.3	1.3	U	1.3	**0.99**	J	1.3	**1.6**		1.3				1.3	U	1.3	**3.2**		1.3
Bromodichloromethane	0.60	U	0.60	1.2	U	1.2	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60				0.60	U	0.60	0.60	U	0.60
Bromoform	0.39	U	0.39	0.77	U	0.77	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39				0.39	U	0.39	0.39	U	0.39
Bromomethane	1.0	U	1.0	2.1	U	2.1	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0
Carbon Disulfide	**6.5**		1.3	2.6	U	2.6	**2.2**		1.3	1.3	U	1.3	1.3	U	1.3	**1.2**	J	1.3				1.3	U	1.3	1.3	U	1.3
Carbon Tetrachloride	0.64	U	0.64	1.3	U	1.3	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64				0.64	U	0.64	0.64	U	0.64
Chlorobenzene	0.87	U	0.87	1.7	U	1.7	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87
Chloroethane	1.5	U	1.5	3.0	U	3.0	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5				1.5	U	1.5	1.5	U	1.5
Chloroform	0.82	U	0.82	**2.8**		1.6	**2.7**		0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82				0.82	U	0.82	0.82	U	0.82
Chloromethane	1.9	U	1.9	3.9	U	3.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	**2.7**		1.9				1.9	U	1.9	1.9	U	1.9
cis-1,2-Dichloroethene	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0
cis-1,3-Dichloropropane	0.88	U	0.88	1.8	U	1.8	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88
Dibromochloromethane	0.47	U	0.47	0.94	U	0.94	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47				0.47	U	0.47	0.47	U	0.47
Ethylbenzene	**11**		0.92	1.8	U	1.8	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	**6.0**		0.92				0.92	U	0.92	**8.2**		0.92
m- &p-Xylene	**44**		0.92	**3.4**	J[1]	1.8	**2.3**	J[1]	0.92	**1.7**		0.92	2.2		0.92	**28**		0.92				**1.1**		0.92	**32**		0.92
Methyl tert-Butyl Ether	**100**		1.1	**3.2**		2.2	**3.1**		1.1	**2.0**		1.1	**1.9**		1.1	**1.2**		1.1				**2.2**		1.1	**41**		1.1
Methylene Chloride	**0.8**	J	1.2	2.3	U	2.3	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	**1.1**	J	1.2				**270**		1.2	**200**		1.2
o-Xylene	**16**		0.92	**1.3**	J	1.8	**0.86**	J	0.92	**0.7**	J	0.92	**1.1**		0.92	**16**		0.92				0.92	U	0.92	**12**		0.92
Styrene	0.94	U	0.94	1.9	U	1.9	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94				0.94	U	0.94	**3.5**		0.94
Tetrachloroethene	0.59	U	0.59	1.2	U	1.2	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	**0.84**		0.59				0.59	U	0.59	**3.4**		0.59
Toluene	**63**		1.1	**5.6**	J[1]	2.1	**3.5**	J[1]	1.1	**2.3**		1.1	**3.2**		1.1	**11**		1.1				**5.0**		1.1	**61**		1.1
trans-1,2-Dichloroethene	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0
trans-1,3-Dichloropropene	0.88	U	0.88	1.8	U	1.8	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88
Trichloroethene	0.74	U	0.74	1.5	U	1.5	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74				**12**		0.74	0.74	U	0.74
Trichlorofluoromethane	**0.47**	J	0.71	1.4	U	1.4	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71				0.71	U	0.71	0.71	U	0.71
Trichlorotrifluoroethane	0.52	U	0.52	1.0	U	1.0	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52
Vinyl Acetate	1.1	U	1.1	2.3	U	2.3	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1				1.1	U	1.1	1.1	U	1.1
Vinyl Chloride	1.6	U	1.6	3.1	U	3.1	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6				1.6	U	1.6	1.6	U	1.6

NOTE: All methane & nonmethane results to be reported in ppmv; all VOC results to be reported in ppbv.
The RDL should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration).
Qualifier J[1] = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.5

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
APRIL 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE
(continued)

Sample Location	Ambient Air Sample			Ambient Air Sample			Brothers Machine & Tool			Brothers Machine & Tool			Ambient Air Sample			Ambient Air Sample			Method Blank			Method Blank			Method Blank		
Sample Number	WDI-IBM49-08			WDI-IBM49-08			WDI-IBM50-08			WDI-IBM50-08			WDI-IBM-51-08			WDI-IBM-TM-13 Contain			Method Blank			Method Blank			Method Blank		
Sample Type	REG			DUP			REG			DUP			REG			REG			Blank			Blank			Blank		
Sample Depth																											
Sample Date	4/26/99			4/26/99			4/26/99			4/26/99			Not sampled this quarter.			Not sampled this quarter.			NA			NA			NA		
Field Methane (%)																											
Field PID VOCs (ppm)																											
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID	P9900842-010			P9900842-010DUP			P9900842-002			P9900842-002DUP									P990525-MB			P990526-MB			P990503-MB		
Analysis Date	5/3/99			5/3/99			5/3/99			5/25/99									5/25/99			5/26/99			5/3/99		
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)	**2.5**		0.50	**2.2**		0.50	**2.3**		0.50																0.50	U	0.50
Total Nonmethane (ppmv)	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0																1.0	U	1.0
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane	0.73	U	0.73				0.73	U	0.73	0.73	U	0.73							0.18	U	0.18	0.18	U	0.18			
1,1,2,2-Tetrachloroethane	0.58	U	0.58				0.58	U	0.58	0.58	U	0.58							0.15	U	0.15	0.15	U	0.15			
1,1,2-Trichloroethane	0.73	U	0.73				0.73	U	0.73	0.73	U	0.73							0.18	U	0.18	0.18	U	0.18			
1,1-Dichloroethane	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99							0.25	U	0.25	0.25	U	0.25			
1,1-Dichloroethene	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0							0.25	U	0.25	0.25	U	0.25			
1,2-Dibromoethane	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52							0.13	U	0.13	0.13	U	0.13			
1,2-Dichlorobenzene	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67							0.17	U	0.17	0.17	U	0.17			
1,2-Dichloroethane	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99							0.25	U	0.25	0.25	U	0.25			
1,2-Dichloropropane	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87							0.22	U	0.22	0.22	U	0.22			
1,3-Dichlorobenzene	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67							0.17	U	0.17	0.17	U	0.17			
1,4-Dichlorobenzene	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67							0.17	U	0.17	0.17	U	0.17			
2-Butanone	1.4	U	1.4				**2.7**		1.4	**2.6**		1.4							0.34	U	0.34	0.34	U	0.34			
2-Hexanone	0.98	U	0.98				0.98	U	0.98	0.98	U	0.98							0.24	U	0.24	0.24	U	0.24			
4-Methyl-2-Pentanone	0.98	U	0.98				0.98	U	0.98	0.98	U	0.98							0.24	U	0.24	0.24	U	0.24			
Acetone	**7.7**		1.7				**24**		1.7	**24**		1.7							0.42	U	0.42	0.42	U	0.42			
Benzene	**1.1**	J	1.3				**1.2**	J	1.3	**1.1**	J	1.3							0.31	U	0.31	0.31	U	0.31			
Bromodichloromethane	0.60	U	0.60				0.60	U	0.60	0.60	U	0.60							0.15	U	0.15	0.15	U	0.15			
Bromoform	0.39	U	0.39				0.39	U	0.39	0.39	U	0.39							0.10	U	0.10	0.10	U	0.10			
Bromomethane	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0							0.26	U	0.26	0.26	U	0.26			
Carbon Disulfide	**3.1**		1.3				1.3	U	1.3	1.3	U	1.3							0.32	U	0.32	0.32	U	0.32			
Carbon Tetrachloride	0.64	U	0.64				0.64	U	0.64	0.64	U	0.64							0.16	U	0.16	0.16	U	0.16			
Chlorobenzene	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87							0.22	U	0.22	0.22	U	0.22			
Chloroethane	1.5	U	1.5				1.5	U	1.5	1.5	U	1.5							0.38	U	0.38	0.38	U	0.38			
Chloroform	0.82	U	0.82				0.82	U	0.82	0.82	U	0.82							0.20	U	0.20	0.20	U	0.20			
Chloromethane	1.9	U	1.9				1.9	U	1.9	1.9	U	1.9							0.48	U	0.48	0.48	U	0.48			
cis-1,2-Dichloroethene	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0							0.25	U	0.25	0.25	U	0.25			
cis-1,3-Dichloropropane	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88							0.22	U	0.22	0.22	U	0.22			
Dibromochloromethane	0.47	U	0.47				0.47	U	0.47	0.47	U	0.47							0.12	U	0.12	0.12	U	0.12			
Ethylbenzene	0.92	U	0.92				0.92	U	0.92	0.92	U	0.92							0.23	U	0.23	0.23	U	0.23			
m- &p-Xylene	**1.5**		0.92				**1.1**		0.92	**1.1**		0.92							0.23	U	0.23	0.23	U	0.23			
Methyl tert-Butyl Ether	**2.5**		1.1				**2.4**		1.1	**2.4**		1.1							0.28	U	0.28	0.28	U	0.28			
Methylene Chloride	1.2	U	1.2				1.2	U	1.2	1.2	U	1.2							0.29	U	0.29	0.29	U	0.29			
o-Xylene	0.92	U	0.92				0.92	U	0.92	0.92	U	0.92							0.23	U	0.23	0.23	U	0.23			
Styrene	0.94	U	0.94				0.94	U	0.94	0.94	U	0.94							0.23	U	0.23	0.23	U	0.23			
Tetrachloroethene	0.59	U	0.59				0.59	U	0.59	0.59	U	0.59							0.15	U	0.15	0.15	U	0.15			
Toluene	**2.7**		1.1				**2.6**		1.1	**2.7**		1.1							0.27	U	0.27	0.27	U	0.27			
trans-1,2-Dichloroethene	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0							0.25	U	0.25	0.25	U	0.25			
trans-1,3-Dichloropropene	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88							0.22	U	0.22	0.22	U	0.22			
Trichloroethene	0.74	U	0.74				0.74	U	0.74	0.74	U	0.74							0.19	U	0.19	0.19	U	0.19			
Trichlorofluoromethane	0.71	U	0.71				0.71	U	0.71	0.71	U	0.71							0.18	U	0.18	0.18	U	0.18			
Trichlorotrifluoroethane	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52							0.13	U	0.13	0.13	U	0.13			
Vinyl Acetate	1.1	U	1.1				1.1	U	1.1	1.1	U	1.1							0.28	U	0.28	0.28	U	0.28			
Vinyl Chloride	1.6	U	1.6				1.6	U	1.6	1.6	U	1.6							0.39	U	0.39	0.39	U	0.39			

NOTE: All methane & nonmethane results to be reported in ppmv; all VOC results to be reported in ppbv.
The RDL should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration).
Qualifier J' = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.6

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
AUGUST 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Stansell Brothers			R & R Sprouts			R & R Sprouts			C & E Die and Fab			C & E Die and Fab			C & E Die and Fab (Ambient)			C & E Die and Fab (Ambient)			Buffalo Bullet			Ambient Air Sample		
Sample Number	WDI-IBM03-09			WDI-IBM-03B-09			WDI-IBM-03B-09			WDI-IBM-24-09			WDI-IBMFD24-09			WDI-IBM-AMB24-09			WDI-IBM-AMB24-09			WDI-IBM-24B-09			WDI-IBM-26-09		
Sample Type	REG			REG			DUP			REG			REG			REG			DUP			REG			REG		
Sample Depth																											
Sample Date	Not sampled this quarter			8/2/99			8/2/99			8/2/99			8/2/99			8/2/99			8/2/99			8/2/99			8/2/99		
Field Methane (%)																											
Field PID VOCs (ppm)																											
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID				P9901508-011			P9901508-011DUP			P9901508-006			P9901508-007			P9901508-008			P9901508-008DUP			P9901508-009			P9901508-004		
Analysis Date				8/3/99			8/3/99			8/3/99			8/3/99			8/3/99			8/3/99			8/3/99			8/3/99		
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)				**1.9**		0.50	**2.0**		0.50	**1.8**		1.0	**2.0**		0.50	**2.5**		0.50	**2.3**		0.50	**2.5**		0.50	**1.5**		0.50
Total Nonmethane (ppmv)				1.0	U	1.0	1.0	U	1.0	2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane				0.73	U	0.73				1.5	U	1.5	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73
1,1,2,2-Tetrachloroethane				0.58	U	0.58				1.2	U	1.2	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58
1,1,2-Trichloroethane				0.73	U	0.73				1.5	U	1.5	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73
1,1-Dichloroethane				0.99	U	0.99				2.0	U	2.0	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99
1,1-Dichloroethene				1.0	U	1.0				2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0
1,2-Dibromoethane				0.52	U	0.52				1.0	U	1.0	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52
1,2-Dichlorobenzene				0.67	U	0.67				1.3	U	1.3	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67
1,2-Dichloroethane				0.99	U	0.99				2.0	U	2.0	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99
1,2-Dichloropropane				0.87	U	0.87				1.7	U	1.7	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87
1,3-Dichlorobenzene				0.67	U	0.67				1.3	U	1.3	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67
1,4-Dichlorobenzene				0.67	U	0.67				1.3	U	1.3	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67
2-Butanone				**1.5**		1.4				**3.1**		2.7	**2.2**		1.4	**1.4**		1.4	**1.4**		1.4	**1.7**		1.4	**1.2**	J	1.4
2-Hexanone				0.98	U	0.98				2.0	U	2.0	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
4-Methyl-2-Pentanone				0.98	U	0.98				2.0	U	2.0	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98
Acetone				**16**		1.7				**22**	J[1]	3.4	**13**	J[1]	1.7	**9.5**		1.7	**9.7**		1.7	**15**		1.7	**9.6**		1.7
Benzene				**1.1**	J	1.3				2.5	U	2.5	1.3	U	1.3	**1.1**	J	1.3	**1.0**	J	1.3	1.3	U	1.3	1.3	U	1.3
Bromodichloromethane				0.60	U	0.60				1.2	U	1.2	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60
Bromoform				0.39	U	0.39				0.77	U	0.77	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39
Bromomethane				1.0	U	1.0				2.1	U	2.1	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0
Carbon Disulfide				1.3	U	1.3				2.6	U	2.6	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3
Carbon Tetrachloride				0.64	U	0.64				1.3	U	1.3	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64
Chlorobenzene				0.87	U	0.87				1.7	U	1.7	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87
Chloroethane				1.5	U	1.5				3.0	U	3.0	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5
Chloroform				**10**		0.82				1.6	U	1.6	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82
Chloromethane				1.9	U	1.9				3.9	U	3.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9
cis-1,2-Dichloroethene				1.0	U	1.0				2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0
cis-1,3-Dichloropropane				0.88	U	0.88				1.8	U	1.8	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88
Dibromochloromethane				0.47	U	0.47				0.94	U	0.94	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47
Ethylbenzene				0.92	U	0.92				1.8	U	1.8	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
m- &p-Xylene				**1.3**		0.92				**1.9**		1.8	**1.9**		0.92	**1.4**		0.92	**1.4**		0.92	**1.3**		0.92	**1.1**		0.92
Methyl tert-Butyl Ether				**3.6**		1.1				**5.7**	J[1]	2.2	**3.2**	J[1]	1.1	**3.4**		1.1	**3.4**		1.1	**2.9**		1.1	**3.5**		1.1
Methylene Chloride				1.2	U	1.2				2.3	U	2.3	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2
o-Xylene				0.92	U	0.92				1.8	U	1.8	**0.99**		0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92
Styrene				**1.8**		0.94				1.9	U	1.9	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94
Tetrachloroethene				0.59	U	0.59				1.2	U	1.2	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59
Toluene				**3.3**		1.1				**17**	J[1]	2.1	**2.9**	J[1]	1.1	**3.0**		1.1	**2.8**		1.1	**3.6**		1.1	**2.6**		1.1
trans-1,2-Dichloroethene				1.0	U	1.0				2.0	U	2.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0
trans-1,3-Dichloropropene				0.88	U	0.88				1.8	U	1.8	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88
Trichloroethene				0.74	U	0.74				1.5	U	1.5	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74
Trichlorofluoromethane				**0.64**	J	0.71				1.4	U	1.4	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71
Trichlorotrifluoroethane				0.52	U	0.52				1.0	U	1.0	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52
Vinyl Acetate				1.1	U	1.1				2.3	U	2.3	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1
Vinyl Chloride				1.6	U	1.6				3.1	U	3.1	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6

NOTE: All methane & nonmethane results to be reported in ppmv; all VOC results to be reported in ppbv.
The RDL should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration).
Qualifier J[1] = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.6

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
AUGUST 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE
(continued)

Sample Location	Durango Designs			H & H Contractors			Ambient Air Sample			Brothers Machine & Tool			Ambient Air Sample			Ambient Air Sample			Ambient Air Sample			Method Blank			Method Blank		
Sample Number	WDI-IBM37-09			WDI-IBM-41-09			WDI-IBM-49-09			WDI-IBM-50-09			WDI-IBM-51-09			WDI-IBM-51-09			WDI-IBM-TM-13 Contain			Method Blank			Method Blank		
Sample Type	REG			REG			REG			REG			REG			DUP			REG			Blank			Blank		
Sample Depth																											
Sample Date	Not sampled this quarter			8/2/99			8/2/99			8/2/99			8/2/99			8/2/99			8/2/99			NA			NA		
Field Methane (%)																											
Field PID VOCs (ppm)																											
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID				P9901508-001			P9901508-002			P9901508-010			P9901508-003			P9901508-003DUP			P9901508-005			P990803-MB			P990803-MB		
Analysis Date				8/3/99			8/3/99			8/3/99			8/3/99			8/3/99			8/3/99			8/3/99			8/3/99		
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)				**1.5**		0.50	**1.8**		0.50	**1.8**		0.50	**1.6**		0.50				**1.7**		0.50				0.50	U	0.50
Total Nonmethane (ppmv)				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0				1.0	U	1.0				1.0	U	1.0
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane				**2.1**		0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.18	U	0.18			
1,1,2,2-Tetrachloroethane				0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.15	U	0.15			
1,1,2-Trichloroethane				0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.18	U	0.18			
1,1-Dichloroethane				0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.25	U	0.25			
1,1-Dichloroethene				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	0.25	U	0.25			
1,2-Dibromoethane				0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.13	U	0.13			
1,2-Dichlorobenzene				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.17	U	0.17			
1,2-Dichloroethane				0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.25	U	0.25			
1,2-Dichloropropane				0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.22	U	0.22			
1,3-Dichlorobenzene				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.17	U	0.17			
1,4-Dichlorobenzene				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.17	U	0.17			
2-Butanone				**9.8**		1.4	**1.5**		1.4	1.4	U	1.4	**1.8**		1.4	**1.5**		1.4	**1.1**	J	1.4	0.34	U	0.34			
2-Hexanone				0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.24	U	0.24			
4-Methyl-2-Pentanone				0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.24	U	0.24			
Acetone				**490**		1.7	**12**		1.7	**20**		1.7	**10**		1.7	**10**		1.7	**7.7**		1.7	0.42	U	0.42			
Benzene				**2.6**		1.3	**1.3**		1.3	**16**		1.3	**1.1**	J	1.3	**1.1**	J	1.3	**1.1**	J	1.3	0.31	U	0.31			
Bromodichloromethane				0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.15	U	0.15			
Bromoform				0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.10	U	0.10			
Bromomethane				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	0.26	U	0.26			
Carbon Disulfide				1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	0.32	U	0.32			
Carbon Tetrachloride				0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.16	U	0.16			
Chlorobenzene				0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.22	U	0.22			
Chloroethane				1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	0.38	U	0.38			
Chloroform				0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.20	U	0.20			
Chloromethane				1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	0.48	U	0.48			
cis-1,2-Dichloroethene				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	0.25	U	0.25			
cis-1,3-Dichloropropane				0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.22	U	0.22			
Dibromochloromethane				0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.12	U	0.12			
Ethylbenzene				**6.3**		0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.23	U	0.23			
m- &p-Xylene				**32**		0.92	**3.0**		0.92	**1.6**		0.92	**1.6**		0.92	**1.6**		0.92	**1.6**		0.92	0.23	U	0.23			
Methyl tert-Butyl Ether				**38**		1.1	**4.3**		1.1	**4.0**		1.1	**3.9**		1.1	**3.7**		1.1	**3.4**		1.1	0.28	U	0.28			
Methylene Chloride				**320**		1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	1.2	U	1.2	0.29	U	0.29			
o-Xylene				**8.1**		0.92	**1.3**		0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.92	U	0.92	0.23	U	0.23			
Styrene				**1.4**		0.94	0.94	U	0.94	**1.9**		0.94	0.94	U	0.94	0.94	U	0.94	0.94	U	0.94	0.23	U	0.23			
Tetrachloroethene				0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	0.15	U	0.15			
Toluene				**180**		1.1	**4.0**		1.1	**5.7**		1.1	**3.1**		1.1	**2.9**		1.1	**2.7**		1.1	0.27	U	0.27			
trans-1,2-Dichloroethene				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	0.25	U	0.25			
trans-1,3-Dichloropropene				0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.22	U	0.22			
Trichloroethene				0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74	0.19	U	0.19			
Trichlorofluoromethane				0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.71	U	0.71	0.18	U	0.18			
Trichlorotrifluoroethane				0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.13	U	0.13			
Vinyl Acetate				1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	0.28	U	0.28			
Vinyl Chloride				1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	0.39	U	0.39			

NOTE: All methane & nonmethane results to be reported in ppmv; all VOC results to be reported in ppbv.
The RDL should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration).
Qualifier J' = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.7

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
NOVEMBER 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE

Sample Location	Stansell Brothers			R & R Sprouts			C & E Die and Fab			C & E Die and Fab			C & E Die and Fab			C & E Die and Fab (Ambient)			C & E Die and Fab (Ambient)			Buffalo Bullet			Ambient Air Sample		
Sample Number	WDI-IBM03-10			WDI-IBM-03B-10			WDI-IBM24-10			WDI-IBMFD24-10			WDI-IBMFD-24-10			WDI-IBMAMB-24-10			WDI-IBMAMB-24-10			WDI-IBM24B-10			WDI-IBM-26-10		
Sample Type	REG			REG			REG			REG			DUP			REG			DUP			REG			REG		
Sample Depth																											
Sample Date	Not sampled this quarter			Not sampled this quarter			11/8/99			11/8/99			11/8/99			11/8/99			11/8/99			11/8/99			Not sampled this quarter		
Field Methane (%)																											
Field PID VOCs (ppm)																											
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID							P9902260-002			P9902260-003			P9902260-003DUP			P9902260-004			P9902260-004DUP			P9902260-005					
Analysis Date							11/12/99			11/12/99			11/12/99			11/12/99			######			11/12/99					
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)							**3.0**		1.0	**2.9**		0.50	**2.9**		0.50	**3.0**		0.50				**4.5**		0.50			
Total Nonmethane (ppmv)							2.0	U	2.0	**2.6**		1.0	**2.7**		1.0	1.0	U	1.0				1.0	U	1.0			
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane							3.3		1.5	**2.9**		0.73				0.73	U	0.73	0.73	U	0.73	0.73	U	0.73			
1,1,2,2-Tetrachloroethane							1.2	U	1.2	0.58	U	0.58				0.58	U	0.58	0.58	U	0.58	0.58	U	0.58			
1,1,2-Trichloroethane							1.5	U	1.5	0.73	U	0.73				0.73	U	0.73	0.73	U	0.73	0.73	U	0.73			
1,1-Dichloroethane							2.0	U	2.0	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99	0.99	U	0.99			
1,1-Dichloroethene							2.0	U	2.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0			
1,2-Dibromoethane							1.0	U	1.0	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52	0.52	U	0.52			
1,2-Dichlorobenzene							1.3	U	1.3	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67			
1,2-Dichloroethane							2.0	U	2.0	0.99	U	0.99				0.99	U	0.99	0.99	U	0.99	0.99	U	0.99			
1,2-Dichloropropane							1.7	U	1.7	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87	0.87	U	0.87			
1,3-Dichlorobenzene							1.3	U	1.3	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67			
1,4-Dichlorobenzene							1.3	U	1.3	0.67	U	0.67				0.67	U	0.67	0.67	U	0.67	0.67	U	0.67			
2-Butanone							**19**		2.7	**16**		1.4				**1.8**		1.4	**2.1**		1.4	**1.4**		1.4			
2-Hexanone							2.0	U	2.0	0.98	U	0.98				0.98	U	0.98	0.98	U	0.98	0.98	U	0.98			
4-Methyl-2-Pentanone							2.0	U	2.0	0.98	U	0.98				0.98	U	0.98	0.98	U	0.98	0.98	U	0.98			
Acetone							**880**	J^1	3.4	**730**	J^1	1.7				**26**		1.7	**25**		1.7	**14**		1.7			
Benzene							2.5	U	2.5	**1.1**	J	1.3				1.3	U	1.3	1.3	U	1.3	**0.99**	J	1.3			
Bromodichloromethane							1.2	U	1.2	0.60	U	0.60				0.60	U	0.60	0.60	U	0.60	0.60	U	0.60			
Bromoform							0.77	U	0.77	0.39	U	0.39				0.39	U	0.39	0.39	U	0.39	0.39	U	0.39			
Bromomethane							2.1	U	2.1	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0			
Carbon Disulfide							2.6	U	2.6	1.3	U	1.3				1.3	U	1.3	1.3	U	1.3	1.3	U	1.3			
Carbon Tetrachloride							1.3	U	1.3	0.64	U	0.64				0.64	U	0.64	0.64	U	0.64	0.64	U	0.64			
Chlorobenzene							1.7	U	1.7	0.87	U	0.87				0.87	U	0.87	0.87	U	0.87	0.87	U	0.87			
Chloroethane							3.0	U	3.0	1.5	U	1.5				1.5	U	1.5	1.5	U	1.5	1.5	U	1.5			
Chloroform							1.6	U	1.6	0.82	U	0.82				0.82	U	0.82	0.82	U	0.82	0.82	U	0.82			
Chloromethane							3.9	U	3.9	1.9	U	1.9				1.9	U	1.9	1.9	U	1.9	1.9	U	1.9			
cis-1,2-Dichloroethene							2.0	U	2.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0			
cis-1,3-Dichloropropane							1.8	U	1.8	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88	0.88	U	0.88			
Dibromochloromethane							0.94	U	0.94	0.47	U	0.47				0.47	U	0.47	0.47	U	0.47	0.47	U	0.47			
Ethylbenzene							**1.2**	J	1.8	**1.0**		0.92				0.92	U	0.92	0.92	U	0.92	0.92	U	0.92			
m- &p-Xylene							**4.3**		1.8	**3.4**		0.92				**1.7**		0.92	**1.8**		0.92	**1.7**		0.92			
Methyl tert-Butyl Ether							**3.9**		2.2	**3.4**		1.1				**2.5**		1.1	**2.4**		1.1	**3.2**		1.1			
Methylene Chloride							**6.7**		2.3	**6.0**		1.2				1.2	U	1.2	1.2	U	1.2	1.2	U	1.2			
o-Xylene							**9.6**		1.8	**8.6**		0.92				**0.69**	J	0.92	**0.7**	J	0.92	**0.76**	J	0.92			
Styrene							**1.8**	J	1.9	**1.4**		0.94				0.94	U	0.94	0.94	U	0.94	**0.73**	J	0.94			
Tetrachloroethene							1.2	U	1.2	0.59	U	0.59				0.59	U	0.59	0.59	U	0.59	0.59	U	0.59			
Toluene							**9.4**		2.1	**7.6**		1.1				**3.2**		1.1	**3.3**		1.1	**3.9**		1.1			
trans-1,2-Dichloroethene							2.0	U	2.0	1.0	U	1.0				1.0	U	1.0	1.0	U	1.0	1.0	U	1.0			
trans-1,3-Dichloropropene							1.8	U	1.8	0.88	U	0.88				0.88	U	0.88	0.88	U	0.88	0.88	U	0.88			
Trichloroethene							1.5	U	1.5	0.74	U	0.74				0.74	U	0.74	0.74	U	0.74	0.74	U	0.74			
Trichlorofluoromethane							1.4	U	1.4	0.71	U	0.71				0.71	U	0.71	0.71	U	0.71	0.71	U	0.71			
Trichlorotrifluoroethane							1.0	U	1.0	0.52	U	0.52				0.52	U	0.52	0.52	U	0.52	0.52	U	0.52			
Vinyl Acetate							2.3	U	2.3	1.1	U	1.1				1.1	U	1.1	1.1	U	1.1	1.1	U	1.1			
Vinyl Chloride							3.1	U	3.1	1.6	U	1.6				1.6	U	1.6	1.6	U	1.6	1.6	U	1.6			

NOTE: All methane & nonmethane results to be reported in ppmv; all VOC results to be reported in ppbv.
The RDL should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration).
Qualifier J^1 = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.7

INTERIM THRESHOLD SCREEN LEVELS ANALYTICAL DATA
NOVEMBER 1999 IN-BUSINESS AIR MONITORING
WASTE DISPOSAL, INC. SUPERFUND SITE
(continued)

Sample Location	Durango Designs			H & H Contractors			Ambient Air Sample			Brother Machine & Tool			Ambient Air Sample			Ambient Air Sample			Method Blank			Method Blank			Method Blank		
Sample Number	WDI-IBM37-10			WDI-IBM41-10			WDI-IBM49-10			WDI-IBM50-10			WDI-IBM-51-10			WDI-IBM-TM-13 Contain			Method Blank			Method Blank			Method Blank		
Sample Type	REG			REG			REG			REG			REG			REG			Blank			Blank			Blank		
Sample Depth																											
Sample Date	11/8/99			11/8/99			11/8/99			11/8/99			Not sampled this quarter.			Not sampled this quarter.			NA			NA			NA		
Field Methane (%)																											
Field PID VOCs (ppm)																											
Laboratory	Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical			Performance Analytical		
Lab Sample ID	P9902260-006			P9902260-007			P9902260-001			P9902260-008									P991116-MB			P991117-MB			P991112-MB		
Analysis Date	11/12/99			11/12/99			11/12/99			11/12/99									11/16/99			11/17/99			11/12/99		
	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
Lab Methane (ppmv)	**2.0**		0.50	**1.6**		0.50	**2.1**		0.50	**2.2**		0.50													0.50	U	0.50
Total Nonmethane (ppmv)	**2.8**		1.0	**1.0**		1.0	1.0	U	1.0	1.0	U	1.0													1.0	U	1.0
Parameter (TO-15 analytes)	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL	Result	Qual	RDL
	(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)			(ppbv)		
1,1,1-Trichloroethane	0.73	U	0.73	**1.5**		0.73	0.73	U	0.73	0.73	U	0.73							0.18	U	0.18	0.18	U	0.18			
1,1,2,2-Tetrachloroethane	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58	0.58	U	0.58							0.15	U	0.15	0.15	U	0.15			
1,1,2-Trichloroethane	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73	0.73	U	0.73							0.18	U	0.18	0.18	U	0.18			
1,1-Dichloroethane	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99							0.25	U	0.25	0.25	U	0.25			
1,1-Dichloroethene	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.25	U	0.25	0.25	U	0.25			
1,2-Dibromoethane	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52							0.13	U	0.13	0.13	U	0.13			
1,2-Dichlorobenzene	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67							0.17	U	0.17	0.17	U	0.17			
1,2-Dichloroethane	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99	0.99	U	0.99							0.25	U	0.25	0.25	U	0.25			
1,2-Dichloropropane	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87							0.22	U	0.22	0.22	U	0.22			
1,3-Dichlorobenzene	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67							0.17	U	0.17	0.17	U	0.17			
1,4-Dichlorobenzene	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67	0.67	U	0.67							0.17	U	0.17	0.17	U	0.17			
2-Butanone	**44**		1.4	**13**		1.4	**2.6**		1.4	**1.3**	J	1.4							0.34	U	0.34	0.34	U	0.34			
2-Hexanone	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98	0.98	U	0.98							0.24	U	0.24	0.24	U	0.24			
4-Methyl-2-Pentanone	0.98	U	0.98	**1.2**		0.98	0.98	U	0.98	0.98	U	0.98							0.24	U	0.24	0.24	U	0.24			
Acetone	**28**		1.7	**430**		1.7	**13**		1.7	**35**		1.7							0.42	U	0.42	0.42	U	0.42			
Benzene	**0.9**	J	1.3	**2.4**		1.3	**1.0**	J	1.3	**0.98**	J	1.3							0.31	U	0.31	0.31	U	0.31			
Bromodichloromethane	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60	0.60	U	0.60							0.15	U	0.15	0.15	U	0.15			
Bromoform	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39	0.39	U	0.39							0.10	U	0.10	0.10	U	0.10			
Bromomethane	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.26	U	0.26	0.26	U	0.26			
Carbon Disulfide	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3	1.3	U	1.3							0.32	U	0.32	0.32	U	0.32			
Carbon Tetrachloride	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64	0.64	U	0.64							0.16	U	0.16	0.16	U	0.16			
Chlorobenzene	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87	0.87	U	0.87							0.22	U	0.22	0.22	U	0.22			
Chloroethane	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5	1.5	U	1.5							0.38	U	0.38	0.38	U	0.38			
Chloroform	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82	0.82	U	0.82							0.20	U	0.20	0.20	U	0.20			
Chloromethane	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9	1.9	U	1.9							0.48	U	0.48	0.48	U	0.48			
cis-1,2-Dichloroethene	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.25	U	0.25	0.25	U	0.25			
cis-1,3-Dichloropropane	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88							0.22	U	0.22	0.22	U	0.22			
Dibromochloromethane	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47	0.47	U	0.47							0.12	U	0.12	0.12	U	0.12			
Ethylbenzene	**0.71**	J	0.92	**5.9**		0.92	0.92	U	0.92	0.92	U	0.92							0.23	U	0.23	0.23	U	0.23			
m- &p-Xylene	**2.6**		0.92	**22**		0.92	**1.6**		0.92	**1.7**		0.92							0.23	U	0.23	0.23	U	0.23			
Methyl tert-Butyl Ether	**2.9**		1.1	**24**		1.1	**4.7**		1.1	**2.6**		1.1							0.28	U	0.28	0.28	U	0.28			
Methylene Chloride	**730**		1.2	**280**		1.2	1.2	U	1.2	1.2	U	1.2							0.29	U	0.29	0.29	U	0.29			
o-Xylene	**1.0**		0.92	**6.0**		0.92	**0.63**	J	0.92	0.92	U	0.92							0.23	U	0.23	0.23	U	0.23			
Styrene	**0.86**	J	0.94	**1.1**		0.94	0.94	U	0.94	0.94	U	0.94							0.23	U	0.23	0.23	U	0.23			
Tetrachloroethene	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59	0.59	U	0.59							0.15	U	0.15	0.15	U	0.15			
Toluene	**6.4**		1.1	**140**		1.1	**3.0**		1.1	**2.8**		1.1							0.27	U	0.27	0.27	U	0.27			
trans-1,2-Dichloroethene	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0	1.0	U	1.0							0.25	U	0.25	0.25	U	0.25			
trans-1,3-Dichloropropene	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88	0.88	U	0.88							0.22	U	0.22	0.22	U	0.22			
Trichloroethene	**42**		0.74	0.74	U	0.74	0.74	U	0.74	0.74	U	0.74							0.19	U	0.19	0.19	U	0.19			
Trichlorofluoromethane	0.71	U	0.71	**0.81**		0.71	0.71	U	0.71	0.71	U	0.71							0.18	U	0.18	0.18	U	0.18			
Trichlorotrifluoroethane	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52	0.52	U	0.52							0.13	U	0.13	0.13	U	0.13			
Vinyl Acetate	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1	1.1	U	1.1							0.28	U	0.28	0.28	U	0.28			
Vinyl Chloride	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6	1.6	U	1.6							0.39	U	0.39	0.39	U	0.39			

NOTE: All methane & nonmethane results to be reported in ppmv; all VOC results to be reported in ppbv.
The RDL should be provided for all analytes.
Qualifier U = analyte not detected; qualifier J = analyte detected below RDL (estimated concentration).
Qualifier J' = results for analyte should be considered estimated because a large discrepancy was observed in laboratory duplicate analysis.
"Results" field includes either: the concentration or the RDL (if analyte not detected). Do not report results with < symbol.
Bold number = detection of analyte; Shaded area with **bold number** = detected analyte which exceeded Indoor Air threshold limits.

TABLE 4.8
SUMMARY OF TREND DATA FOR SELECTED IN-BUSINESS AIR SAMPLE LOCATIONS FOR ACETONE, BENZENE, ETHYLBENZENE, m- & p-XYLENE, METHANE, PCE, TCE, TOLUENE AND VINYL CHLORIDE
WASTE DISPOSAL, INC. SUPERFUND SITE

SAMPLE NUMBER	SAMPLE LOCATION	CONSTITUENTS[1]	1998						1999			
			Feb	Mar	Apr	2ndQ	3rdQ	4thQ	1stQ	2ndQ	3rdQ	4thQ
IBM-03	Stansell Brothers	Acetone	1,900				270	290	750	640		
		Benzene	4.6				2.3	4.7	6.6	6.4		
		Ethylbenzene	5.8				1.8	2.5	7	11		
		m- & p-Xylene	24				7.0	8.2	25	44		
		Methane	3.1				3.5	3.2	3.9	2.8		
		PCE	2				ND	ND	ND	ND		
		TCE	ND				ND	ND	ND	ND		
		Toluene	45				12	15	48	63		
		Vinyl Chloride	ND				ND	ND	ND	ND		
IBM-3B	R & R Sprouts	Acetone				12		30	24	24	16	
		Benzene				ND		9.4	2.0	1.4	1.1	
		Ethylbenzene				ND		ND	ND	ND	ND	
		m- & p-Xylene				1.3		2.2	3.1	3.4	1.3	
		Methane				2.3		4.1	3.8	2.9	1.9	
		PCE				ND		ND	ND	ND	ND	
		TCE				ND		ND	ND	ND	ND	
		Toluene				2.6		4.9	6.3	5.6	3.3	
		Vinyl Chloride				ND		ND	ND	ND	ND	
IBM-24	C & E Die	Acetone	27	5.9	13	9.3	12	20	45	19	22	880
		Benzene	1.4	1.0	1.0	ND	ND	1.7	28	ND	ND	ND
		Ethylbenzene	ND	ND	ND	ND	ND	ND	2.3	ND	ND	1.2
		m- & p-Xylene	2.6	1.1	ND	1.8	1.1	2.0	9.6	1.7	1.9	4.3
		Methane	2.8	2.5	2.6	2.2	2.9	3.3	3.2	2.4	1.8	3.0
		PCE	0.7	ND	2.1	4.7	ND	ND	ND	ND	ND	ND
		TCE	ND	ND	ND	1.1	ND	ND	ND	ND	ND	ND
		Toluene	9.3	3.2	2.9	14	3.4	4.7	6.7	2.3	17	9.4
		Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1
IBM-24B	Buffalo Bullets	Acetone	12	17	8.9	11	8	8.9	12	34	15	14
		Benzene	1.2	1.1	ND	ND	2.7	1.7	2.4	1.6	ND	1.0
		Ethylbenzene	ND	ND	ND	ND	ND	ND	1.8	6.0	ND	ND
		m- & p-Xylene	1.7	1.4	ND	1.3	1.0	1.3	4.2	28.0	1.3	1.7
		Methane	3.8	3.3	3.9	2.7	3.5	3.0	4.4	2.9	2.5	4.5
		PCE	0.6	ND	0.9	ND	ND	ND	ND	0.8	3.6	ND
		TCE	ND	ND	ND	ND	ND	ND	1.0	ND	ND	ND
		Toluene	4.7	3.9	3.1	3.6	3.0	2.6	2.5	11	3.6	3.9
		Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IBM-37	Durango Designs	Acetone								12		28
		Benzene								1.3		0.9
		Ethylbenzene								ND		0.7
		m- & p-Xylene								1.1		2.6
		Methane								2.1		2.0
		PCE								ND		ND
		TCE								12.0		42.0
		Toluene								5.0		6.4
		Vinyl Chloride								ND		ND

(1) Except for methane concentrations measured as parts per million volume (ppmv); concentrations of constituents were measured in parts per billion volume (ppbv).

ND = Concentration of the constituent was not detected above the laboratory's reporting limit.
Bold number show concentrations that exceeded 50 percent of the Indoor Air Interim Threshold Screening Levels (ITSLs).
ITSLs: acetone (156 ppbv); benzene (1.0 ppbv); ethylbenzene (245 ppbv); m- & p-xylenes (71.4 ppbv); methane (6,250 ppmv); PCE (5.3 ppbv); TCE (4.1 ppbv); toluene (106 ppbv) and vinyl chloride (0.125 ppbv).
Shaded area indicates that data was not collected due to access problems.

TABLE 4.8
SUMMARY OF TREND DATA FOR SELECTED IN-BUSINESS AIR SAMPLE LOCATIONS FOR ACETONE, BENZENE, ETHYLBENZENE, m- & p-XYLENE, METHANE, PCE, TCE, TOLUENE AND VINYL CHLORIDE
WASTE DISPOSAL, INC. SUPERFUND SITE

SAMPLE NUMBER	SAMPLE LOCATION	CONSTITUENTS[1]	1998						1999			
			Feb	Mar	Apr	2ndQ	3rdQ	4thQ	1stQ	2ndQ	3rdQ	4thQ
IBM-41	H & H Contractors	Acetone	46	ND	37	53	50	94	**200**	**340**	**490**	**430**
		Benzene	**4.1**	ND	**4.6**	**5.8**	**7.2**	**5.7**	**3.9**	**3.2**	**2.6**	**2.4**
		Ethylbenzene	6.0	ND	3.2	6.3	4.8	4.6	5.1	8.2	6.3	5.9
		m- & p-Xylene	24	ND	12	23	17	17	20	32	32	22
		Methane	3.5	ND	3.1	2.4	3.1	2.8	2.8	2.2	1.5	1.6
		PCE	3.0	ND	ND	ND	1.4	**11.0**	**22.0**	**34.0**	ND	ND
		TCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Toluene	64	ND	34	48	34	52	91	61	**180**	**140**
		Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IBM-50	Brothers Machine & Tool	Acetone	17	8	6	66	15	25	110	24	20	35
		Benzene	**1.0**	**1.1**	ND	**1.1**	**1.6**	**2.1**	**2.1**	**1.2**	**16**	**1.0**
		Ethylbenzene	ND	ND	0.7	ND	ND	2.5	1.1	ND	ND	ND
		m- & p-Xylene	1.4	1.4	2.5	1.4	1.8	11	4.4	1.1	1.6	1.7
		Methane	2.7	2.5	2.6	2.1	3.0	2.8	2.9	2.3	1.8	2.2
		PCE	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
		TCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Toluene	3.8	3.9	2.7	3.9	5.3	8	6.2	2.6	5.7	2.8
		Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
IBM-24AMB	Ambient Air	Acetone		5.6	3.7	8.8	6.7	8.3	9.4	**290**	9.5	26
		Benzene		**1.2**	ND	ND	ND	**1.8**	**1.7**	**1.0**	**1.1**	ND
		Ethylbenzene		ND	ND	ND	ND	ND	ND	ND	ND	ND
		m- & p-Xylene		ND	0.8	1.2	0.9	1.3	2.3	2.2	1.4	1.7
		Methane		2.9	2.7	2.1	2.9	3.6	4.0	3.4	2.5	3.0
		PCE		ND	ND	ND	ND	ND	ND	ND	ND	ND
		TCE		ND	ND	ND	ND	ND	ND	ND	ND	ND
		Toluene		3.2	2.1	2.5	6.9	2.6	4.8	3.2	3.0	3.2
		Vinyl Chloride		ND	ND	ND	ND	ND	ND	ND	ND	ND
IBM-49	Ambient Air	Acetone	21	4.6	5.3	4.3	5.6	24	22	7.7	12	13
		Benzene	**390**	**1.5**	ND	**1.1**	**1.4**	**1.5**	ND	**1.1**	**1.3**	**1.0**
		Ethylbenzene	**1,000**	ND	ND	ND	ND	ND	ND	ND	ND	ND
		m- & p-Xylene	**2,900**	1.9	1.3	1.6	3.0	1.8	2.5	1.5	3.0	1.6
		Methane	2.6	2.5	2.4	2.1	2.5	2.7	2.5	2.5	1.8	2.1
		PCE	ND	ND	1.1	ND	ND	ND	1.7	ND	ND	ND
		TCE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
		Toluene	**6,700**	4.9	2.9	4.2	3.7	3.1	5.2	2.7	4	3.0
		Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

30747-3000 (4/24/01/rm)

(1) Except for methane concentrations measured as parts per million volume (ppmv); concentrations of constituents were measured in parts per billion volume (ppbv).

ND = Concentration of the constituent was not detected above the laboratory's reporting limit.
Bold number show concentrations that exceeded 50 percent of the Indoor Air Interim Threshold Screening Levels (ITSLs).
ITSLs: acetone (156 ppbv); benzene (1.0 ppbv); ethylbenzene (245 ppbv); m- & p-xylenes (71.4 ppbv); methane (6,250 ppmv); PCE (5.3 ppbv); TCE (4.1 ppbv); toluene (106 ppbv) and vinyl chloride (0.125 ppbv).
Shaded area indicates that data was not collected due to access problems.

TABLE 5.1

DATA QUALITY OBJECTIVES DEVELOPMENT PROCESS WASTE DISPOSAL, INC. SUPERFUND SITE

ACTIVITY	SUBSURFACE GAS MONITORING	SHALLOW SUBSURFACE GAS MONITORING
Objectives	See Workplan Section 3.2.2.	See Workplan Section 3.2.2.
Intended Data Use	Risk assessment, compliance monitoring.	Evaluation of shallow soil gas migration and risk assessment.
Required Analytical Methods of DQO Levels	VOCs (TO-15) Methane (SCAQMD 25.1)	VOCs (TO-15) Methane (SCAQMD 25.1)
	DQO Level 3	DQO Level 2
Contaminants of Concern	VOCs Methane	VOCs Methane
Required Detection Levels	VOCs(1) Methane	VOCs(2) Methane
Action Levels/ Regulatory Standards	• CIWMB Methane Standard. • EPA Interim Action Levels for benzene and vinyl chloride(3).	• CIWMB Methane Standard. • EPA Interim Action Levels for benzene and vinyl chloride(3).
Sampling Points	• The existing vapor wells.	• Shallow soil probes to be located based on vapor well results, if appropriate.
Critical Sampling	Site Perimeter and wells nearest to existing building.	Adjacent to vapor wells.

94-256/Rpt/In-BuAiSaAnMo (May) (5/9/(0)/rm)

(1) Required detection limits are provided in Table B.3 of the Revised QAPP.

(2) Required detection limits are provided in Table B.4 of the Revised QAPP.

(3) EPA interim action levels (EPA, 1997a and 1997b).

TABLE 5.2

FIELD COLLECTION QUALITY ASSURANCE REQUIREMENTS
WASTE DISPOSAL, INC. SUPERFUND SITE

ANALYSIS	TRIP BLANK	FIELD BLANK(1)	FIELD DUPLICATE(2)	MATRIX SPIKE AND MATRIX SPIKE DUPLICATES(3)
Vapor Wells				
Organics	None. One background air sample will be collected daily.	One per 20 samples. Field blank will be an ambient air sample.	One per ten samples or One per day, whichever is greater.	One per 20 samples or One per sample shipment, whichever is greater.

94-256/Rpts/In-BuAiSuAnRe (May) (5/9/00/rm)

(1) Field blanks will be collected during ground water and surface water sampling procedures when nondedicated sampling equipment is used. Field blanks require an additional sample volume (see Tables B.3 and B.4 of the revised QAPP). Note that field blanks will be labeled so the laboratory cannot determine that the sample is a field blank.

(2) Field duplicates require an additional sample volume (see Tables B.3 and B.4). Note that field duplicates will be labeled so the laboratory cannot determine that the sample is a field duplicate. Field duplicates will be collected as split samples from the actual sample collected.

(3) MS/MSD samples require two additional sample volumes for organic analysis. Matrix spike samples require an additional sample volume for inorganic analyses (see Table B.3 of the revised QAPP).

TABLE 5.3

SOIL GAS ANALYSES AND QUALITY CONTROL OBJECTIVES
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETERS	ANALYTICAL PROCEDURE (EPA METHOD NUMBER)	LABORATORY SPECIFIC MEASUREMENT QUALITY OBJECTIVES (MQOs)				TYPE OF CONTAINER	PRESERVATIVE	ANALYTICAL HOLDING TIMES	REMARKS
		Detection Limit (ppbv)	Accuracy[1] (%)	Precision[2] (%)	Completeness (%)				
VOLATILE ORGANIC COMPOUNDS (VOCs)	TO-15					Stainless Steel Summa Canister	None	14 Days	
• 1,1,1-Trichloroethane[3]		10.0	71 - 132	± 30	90				
• 1,1,2,2-Tetrachloroethane		10.0	76 - 136	± 30	90				
• 1,1,2-Trichloroethane		10.0	67 - 133	± 30	90				
• 1,1-Dichloroethane		10.0	49 - 135	± 30	90				
• 1,1-Dichloroethene		10.0	48 - 146	± 30	90				
• 1,2-Dichloroethane[3]		10.0	68 - 129	± 30	90				
• 1,2-Dichloropropane		10.0	42 - 131	± 30	90				
• 2-Butanone		10.0	50 - 153	± 30	90				
• 2-Chloroethyl Vinyl Ether		10.0	40 - 214	± 30	90				
• 2-Hexanone		10.0	20 - 149	± 30	90				
• 4-Methyl-2-pentanone		10.0	40 - 125	± 30	90				
• Acetone		10.0	32 - 176	± 30	90				
• Benzene[3]		5.0	72 - 124	± 30	90				
• Bromodichloromethane		10.0	69 - 132	± 30	90				
• Bromoform		10.0	53 - 148	± 30	90				
• Bromomethane		10.0	55 - 146	± 30	90				
• Carbon Disulfide		10.0	37 - 140	± 30	90				
• Carbon Tetrachloride[3]		10.0	70 - 140	± 30	90				
• Chloroethane		10.0	52 - 137	± 30	90				
• Chloroform[3]		10.0	77 - 128	± 30	90				
• Chloromethane		10.0	37 - 129	± 30	90				
• cis-1,3-Dichloropropene		10.0	66 - 129	± 30	90				
• 1,2-Dibromoethane[3]		10.0	56 - 142	± 30	90				
• Methylene Chloride[3]		10.0	51 - 139	± 30	90				
• Tetrachloroethene		10.0	67 - 145	± 30	90				
• trans-1,2-Dichloroethene		10.0	48 - 134	± 30	90				
• trans-1,3-Dichloropropene		10.0	66 - 130	± 30	90				
• Trichloroethene[3]		10.0	71 - 135	± 30	90				
• Vinyl Acetate		10.0	24 - 143	± 30	90				
• Vinyl Chloride[3]		5.0	48 - 140	± 30	90				
METHANE	SCAQMD-25.1	0.02%	80 - 120	± 30	90	Stainless Steel Summa Canister	None	14 Days	

94-256\Rpt\Jn-BuAtSaAnRe (May) (5/10/00rm)

(1) Based on matrix spike percent recovery.
(2) Based on duplicate samples.
(3) Calderon list constituents will be used as performance indicators.

TABLE 5.4

LABORATORY QUALITY ASSURANCE REQUIREMENTS
VAPOR WELL GAS ANALYSES
WASTE DISPOSAL, INC. SUPERFUND SITE

PARAMETER GROUP	CALIBRATION METHOD	CALIBRATION/QC SAMPLING FREQUENCY	ACCEPTANCE CRITERIA
Volatile Organic Compounds (TO-15)	Calibration Curve	At start of analysis or when continuing calibration verification standard is out of control.	20 percent relative standard deviation if average response factor is used.
	Initial Calibration Verification Standard	After calibration and before sample analysis.	±15 percent of true value.
	Calibration Blank	Every ten samples.	<Method reporting limit.
	Continuing Calibration Verification Standard	Every ten samples.	±15 percent of true value.
	Instrument Blank	One every ten samples.	<Method reporting limit.
	Method Blank	One every 20 samples.	<Method reporting limit.
	MS/MSD and LCS	One every 20 samples.	Precision (%): 30 percent recovery. Accuracy (%): 50 to 125 percent recovery. Completeness (%): 90 percent recovery.
	Surrogate Compound	Every sample.	4-bromofluorobenzene: 59 to 139 percent recovery. α, α, α-trifluorotoluene: 58 to 146 percent recovery.

94-256/Rpts/In-BuAiSaAnRe (May) (5/26/00)/rm)

NOTE: MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample.

TABLE 5.5

SUMMARY OF QA/QC LABORATORY DATA EVALUATION WASTE DISPOSAL, INC. SUPERFUND SITE

EVALUATION REQUIREMENTS	REMARKS/COMMENTS
Detection Limits	Within acceptable limits.
Accuracy	Within acceptable limits.
Precision	Within acceptable limits except as noted in Table 5.3.
Completeness	The samples achieved the required 90% completeness.
Container Type	The samples were collected using the required stainless steel summa canister.
Preservative	Preservatives were not used.
Analytical Holding Times	The samples were analyzed within the required 14-day holding times.
Data Validation	The samples validated were within the acceptable limits, as per U.S. EPA Region 9 Function Guideline for the Validation of Organic Analyses, with the exception of the sample noted in Table 5.3.

94-256/Rpts/In-BuAiSaAnRe (May) (5/9/00)rm)

TABLE 5.6

SUMMARY OF IN BUSINESS AIR ANALYTICAL DATA QUALIFIERS
WASTE DISPOSAL, INC. SUPERFUND SITE

COMPOUND	LABORATORY DATA BATCH	DATA QUALIFIER
		Sample(s) with Reported Positive Results(J^2)
Acetone Methylene Chloride	P9900260 (SDG)	WDI-IBM-41-07

94-256/Rpts/In-BuAiSaAnRe (May) (5/5/00)/rm)

(J^2) = Reported positive results for the following compounds should be considered estimated. The on-line concentration of these compounds exceeded the calibration ranges of the instrument.

TABLE 5.7

SUMMARY OF FIELD DUPLICATE QA/QC EVALUATION
WASTE DISPOSAL, INC. SUPERFUND SITE

SAMPLE I.D.	FIELD DUPLICATE I.D.	LABORATORY DATA BATCH I.D.	COMPOUND	SAMPLE RESULT (ppb Unless Otherwise Noted)	FIELD DUPLICATE RESULT (ppb Unless Otherwise Noted)
WDI-IBM-24B-07(1)	WDI-IBM-FD-24B-07	P9900260	Total Gaseous Nonmethane Organics	5.8 ppm	2.0 ppm
			Acetone	12	ND
			Methyl Tert-butyl Ether	4.2	2.4
			Toluene	8.5	5.2
			m/p-Xylene	15	10
WDI-IBM03B-08(1)	WDI-IBMFD03B-08	P9900842	Acetone	24	18
			Toluene	5.6	3.5
			m/p-Xylene	3.4	2.3
WDI-IBM24-09(1)	WD7-IBMFD24-09	P9901508	Acetone	22	13
			Methyl Tert-butyl Ether	5.7	2.3
			Toluene	17	2.9
WDI-IBM24-10(1)	WDI-IBMFD24-10	P9902260	Acetone	880	730

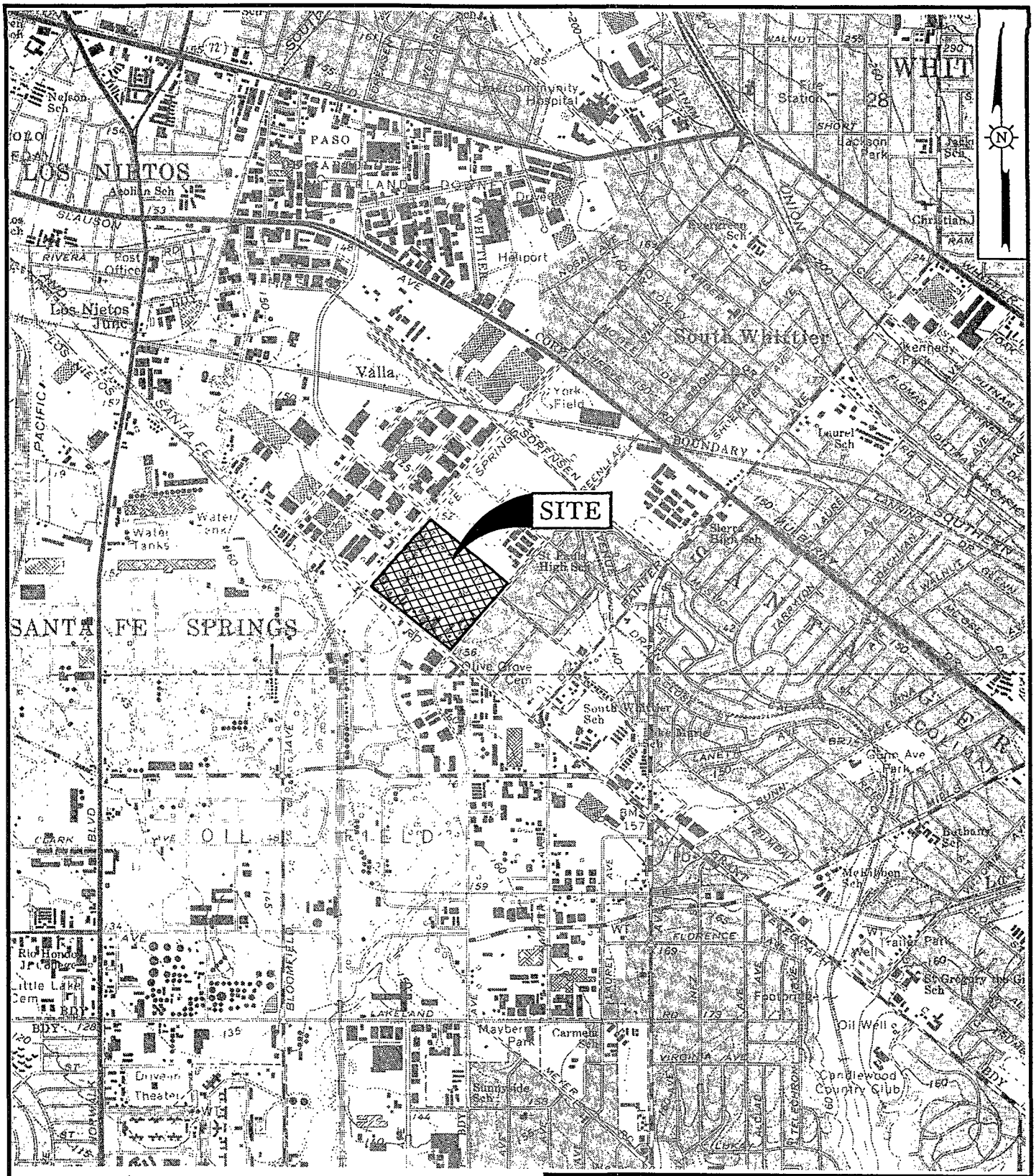
94-256/Rpts Rpts/In-BuAiSuAnRe (May) (5/9/00)rm)

ppb = parts per billion
ND = Nondetect

(1) Sample(s) with reported positive results and considered estimated due to large discrepancies between the sample and field duplicate. Flagged J[1].

FIGURES

94-256IBAR99 REV. 5/22/00



0 2,000 4,000 FEET

SCALE

REFERENCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP OF WHITTIER, CALIFORNIA, DATED 1981.

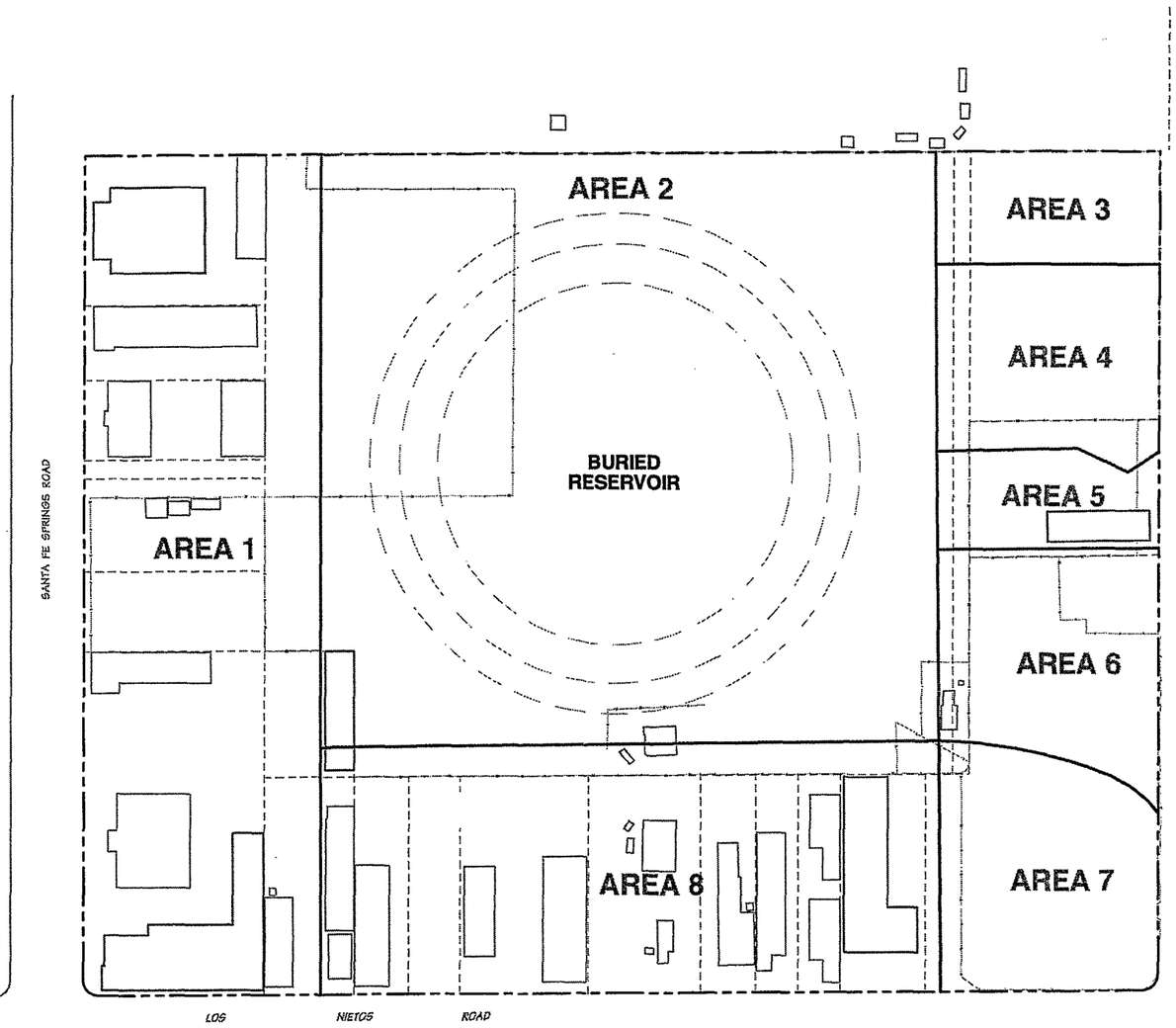
SITE LOCATION MAP

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC

FIGURE 2.1

94-256IBAR99-01 REV. 04/05/00



LEGEND

- SITE BOUNDARY
- AREA BOUNDARY
- FENCE
- EXISTING BUILDING

0 200 400 FEET
SCALE

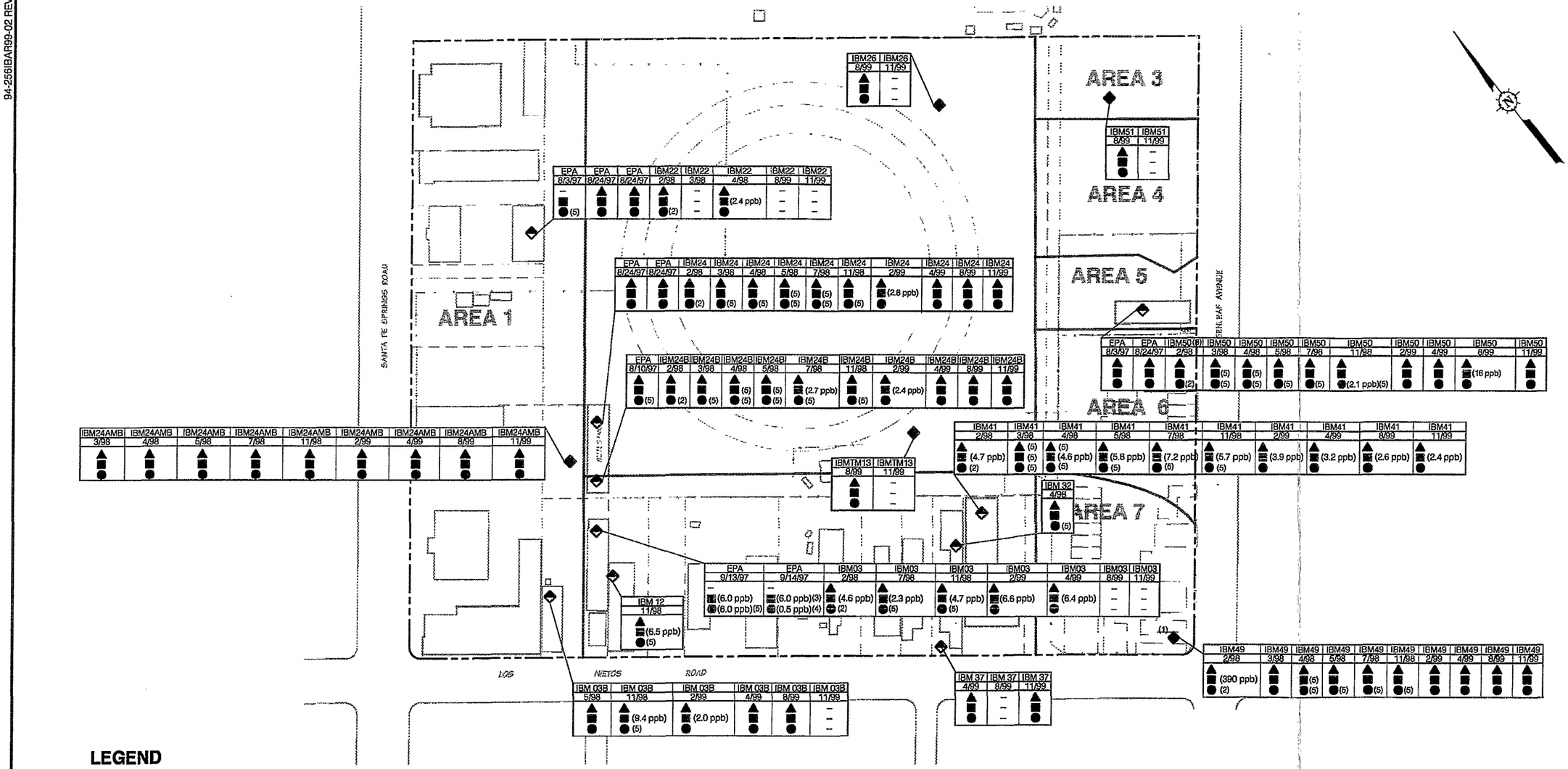
REFERENCE: NUNEZ ENGINEERING, SURVEY DRAWING NE 97187, OCT. 31, 1997.

SITE PLAN

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC | **FIGURE 2.2**

94-256IBAR99-02 REV. 04/06/00



LEGEND

▲	METHANE	<0.01%	.01 TO 1.25%	>1.25%
■	BENZENE	<2 ppb	2 TO 100 ppb	>100 ppb
●	VINYL CHLORIDE	<0.25 ppb	0.25 TO 50 ppb	>50 ppb

- SITE BOUNDARY
- AREA BOUNDARY
- IBM03 — SAMPLE IDENTIFIER
- IN-BUSINESS AIR MONITORING LOCATION
- AMBIENT AIR MONITORING STATION
- (1) — BACKGROUND SAMPLE
- (2) — REPORTING LIMIT 2 ppb
- (3) — ESTIMATED VALUE
- (4) — ESTIMATED VALUE - LOW BIAS FROM SURROGATE
- (5) — EPA DATA VALIDATION QUALIFIED AS NON-DETECT
- – — NOT ANALYZED

NOTES:
1. ONLY WDIG IN-BUSINESS AIR MONITORING LOCATIONS SHOWN.
2. DIFFERENTIATING CRITERIA IS BASED ON IWMB METHANE STANDARD AND EPA ITSL'S FOR BENZENE AND VINYL CHLORIDE.
3. THE MINIMUM DETECTION LIMIT FOR VINYL CHLORIDE IS 1.6 ppb. AS INDICATED ABOVE, A GREEN DOT (<0.25 ppb) HAS BEEN ASSIGNED FOR EACH VINYL CHLORIDE VALUE LESS THAN 1.6 ppb, SINCE THE ITSL OF 0.25 ppb IS BELOW THE PRACTICAL QUANITATION LEVEL.

0 200 400 FEET
SCALE

IN-BUSINESS AIR MONITORING LOCATIONS AND ANALYTICAL RESULTS

WASTE DISPOSAL, INC.
SANTA FE SPRINGS, CALIFORNIA

TRC

FIGURE 4.1

APPENDIX A

FIELD MONITORING DATA
FIELD CALIBRATION LOGS, LABORATORY DATA AND DATA VALIDATION REPORTS
(Provided on CD-ROM)

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